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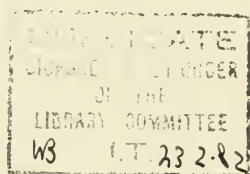
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ERRATA.

Page 185, line 42, for *Glossary of Architecture* read *Rickman's Attempt to Discriminate the Styles of Architecture*.

Page 187, line 9, for "mulieribus" read "mulieres."

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ON THE RECENT DISCOVERIES AT THE EAST END
OF THE CATHEDRAL CHURCH OF DURHAM.¹

By JOHN BILSON, F.S.A.

The historian of the Norman Conquest, in his chapter on the effects of the Conquest on Art, says that it is to Durham "that we are to look for the highest degree of perfection that has ever been reached by round-arched architecture in its Northern form. . . . Among examples of the specially Norman style, none, either in our own island or beyond the sea, can compare with the matchless pile which arose at the bidding of William of Saint Carilef. . . . The designer of such a pile, whether Bishop William himself or some nameless genius in his employ, must rank alongside of Diocletian's architect at Spalato, of Saint Hugh's architect at Lincoln. And the church of Durham not only stands thus pre-eminent as an example of Norman art; it holds a place instructive above all others in the history of Norman art. No building more thoroughly supplies the hatchet to their argument who cannot rise above a purely chronological arrangement of architectural works. The work of William of Saint Carilef was far in advance of all contemporary buildings."²

This last statement is especially true, not only of the decorative features to which Mr. Freeman seems more particularly to refer, but also of the constructional elements which are the basis of the design of all mediæval architecture. In the choir aisles of the work of William of Saint Carilef we find, not the unribbed vault of Roman origin, but the ribbed vault, the design of which dictated the plan of the piers and wall-shafts, each separate rib being supported by a separate shaft carried up from the floor to receive it. The vaulting of the nave is, considering its date, a still more remarkable construction.

¹ Read in substance at the Scarborough meeting of the Institute, July 22, 1895.

² Freeman's *Norman Conquest*, v., 629-631.

Erected between the death of Flambard (1128) and the accession of Geoffrey Rufus (1133),¹ it presents, so far as I know, the earliest example of the introduction of the pointed arch in order to solve the difficulties of the construction of a ribbed groined vault over an oblong space. The design of the vault is no longer based upon a semi-circular transverse rib, as in the transept vaults, but the diagonal ribs are made semi-circular, and the pointed arch follows in the transverse arches, almost as a matter of necessity, though here of a somewhat awkward form.² So remarkable at such an early date is this innovation, that more than one writer on Durham has attributed this vaulting to an impossible period in the thirteenth century. But documentary and architectural evidence combine to prove that at Durham, before 1133, the builders adopted a new expedient, which was destined to revolutionise vaulting construction, and which had the most important influence in the development of Gothic architecture. The method was, says Viollet-le-Duc, the sole innovation of the first constructors of Gothic vaults.³

But these considerations lie outside my present subject, and my only reason for introducing them here is to show how important it is that we should be able to complete the plan of the whole of this most remarkable church. With the exception of the eastern termination, the church remains, in all essential features, as it was built during the forty years from its commencement by William of Saint Carilef in 1093. Recent discoveries have enabled us to complete the ground-plan, at any rate, of this eastern termination.

¹ No other conclusion seems to be possible from the passages in the continuation of Symeon, which state that Flambard built the nave "usque testudinem," and that in the interval between Flambard's death and the accession of Geoffrey Rufus the monks completed the nave. Of Flambard the continuator says, "Circa opus ecclesiæ modo intentius modo remissius agebatur, sicut illi ex oblatione altaris et cœmeterii vel suppetebat pecunia vel deficiebat. His nanque sumptibus navem ecclesiæ circumductis parietibus, ad sui usque testudinem erexerat." *Symeon of Durham, Historia Ecclesiæ Dunhelmensis Continuatio*, cap. i, Rolls Series, Ed. T.

Arnold, vol. i, p. 139. After Flambard's death, "Vacavitque episcopatus per quinquennium. Eo tempore navis ecclesiæ Dunelmensis monachis operi instantibus peracta est." *Symeon*, p. 141. See also *Durham Cathedral*, by the Rev. William Greenwell, 4th edition, pp. 35-37. The architectural details of the vault and the character of the masonry of its ribs fully confirm the date assigned to it.

² The transverse arches are struck from centres considerably below the springing line.

³ *Dictionnaire Raisonné de l'Architecture Française*, iv, 35.

Before describing what has been found, it may be well to give a brief outline of the history of the Norman church.¹ It was commenced by Bishop William in 1093, after his return from exile, Aldhun's church having been pulled down in the previous year.² The work was pushed forward with great rapidity, and, although we have no documentary evidence as to the extent of Carilef's work, it seems probable that, when he died in 1096, he had completed the choir, the crossing piers, the eastern side of both transepts, and one bay of the nave arcade and triforium immediately west of the crossing,³ and that in the interval between his death and the accession of Bishop Flambard in 1099, the monks finished the western side of the transepts. Flambard, who on his accession found the church finished as far as the nave,⁴ completed the nave up to the vault, which was added between his death in 1128 and the accession of Geoffrey Rufus in 1133. The church was now practically finished. With the later Galilee and the upper part of the towers we are not now concerned.

We have no actual record of the erection of the transept vaults, but they are clearly a little earlier than the nave vault. The walls of the clerestory of the choir still show the lines of the Norman vault, which was evidently of the same character as the transept vaults.

¹ I here merely state the conclusions generally accepted. Details of the history and references to the authorities on which these conclusions are based (other than those here quoted) will be found in Canon Greenwell's admirable guide to the Cathedral.

² So says Symeon, though we should have expected that at least part of Aldhun's church would be left standing until the choir of the new church could be used for worship. "Ecclesiam xviij anno ex quo ab Alduno fundata fuerat, destrui præcepit, et sequenti anno positis fundamentis nobiliori satis et majori opere aliam construere cepit. Est autem incepta M. xciiij Dominicæ incarnationis anno, pontificatus autem Willielmi xiiij ex quo autem monachi in Dunelmum convenerant xj tertio Idus Augusti, feria v. Eo enim die Episcopus, et qui post eum secundus erat in ecclesia Prior Turgotus cum cæteris fratribus primos in funda-

mento lapides posuerunt. Nam paulo ante, id est, iv Kal. Augusti feria vi, idem Episcopus et Prior, facta cum fratribus oratione ac data benedictione, fundamentum cøperant fodere. Igitur monachis suas officinas ædificantibus, suis Episcopos sumptibus ecclesiæ opus faciebat."—*Symeon*, lib. iv, cap. 8, p. 128.

³ I do not intend to imply that Carilef completed the whole height of the choir, though it appears to be certain that his work extended as far as the top of the triforium stage.

⁴ "Porro prædecessor (Willelmus de S. Carilefo) illius (Rannulfi), qui opus inchoavit, id decernendo statuerat, ut Episcopus ex suo ecclesiam, monachi vero suas ex ecclesiæ collectis facerent officinas. Quod illo cadente cecidit. Monachi enim omissis officinarum ædificationibus operi ecclesiæ insistent, quam usque navem Rannulfus jam factum invenit."—*Symeon*, *Continuatio*, cap. i, p. 140.

A story told by William of Malmesbury,¹ in connection with the translation of the body of St. Cuthbert into the new choir in 1104, affords ground for the supposition that the apse vault at least, if not the whole choir vault, was then completed. However this may be, the whole church was vaulted from end to end before 1133—in itself a sufficiently remarkable fact.

Bishop Pudsey commenced the erection of a Lady Chapel at the east end of the church, presumably beyond the Norman east end, but the work was abandoned, and the existing Lady Chapel, or Galilee, was ultimately built by Pudsey at the west end of the church. Fragments of Pudsey's eastern chapel have been found at different times near where he proposed to build it, and other fragments were found in the recent excavations. The Norman east end is said to have been in an unsafe condition as early as Pudsey's time, but was only removed when the eastern transept, or Nine Altars, was built.² The greater part of the eastern transept would probably be erected before the Norman east end was removed, in order to avoid interference with St. Cuthbert's shrine, which stood in the apse, and which continued to occupy the same position until its destruction at the Dissolution.

Before the recent excavations were commenced it was known that the Norman choir terminated eastward in an apse, and part of the outer face of the apse foundation was seen in making a grave in 1844.³ It is curious, however, that almost every writer on Durham was inclined to believe that the apse was surrounded by an ambulatory.⁴ This opinion was based on the apparently sufficient reason that, on the outside of both choir aisles, the Norman work extended one bay east of the great arches which cross the choir and aisles between the choir and its apse. The

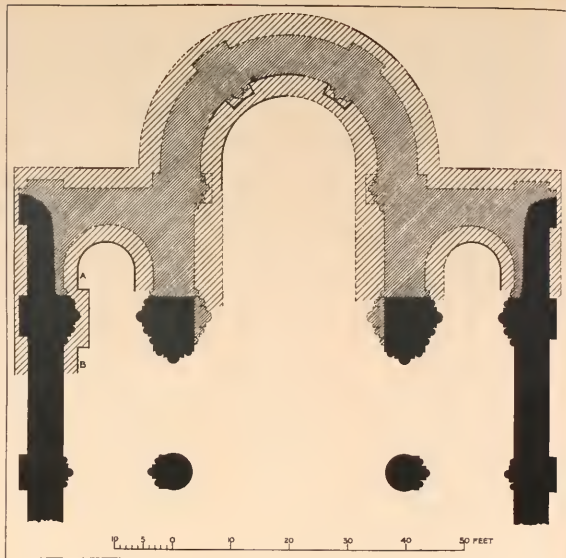
¹ *Gesta Pontificum*, Rolls Series, Ed. Hamilton, p. 275, lib. iii. § 135.

² An indulgence of 1235, from Hugh Northwold, Bishop of Ely, speaks of the *stone vault* over St. Cuthbert's shrine as being then full of cracks and threatening ruin.—Raine's *Saint Cuthbert*, p. 100, and appendix, p. 7.

³ Archaeological Institute, *Memoirs of Newcastle meeting*, 1852, i. 238.

⁴ Billings' *Durham Cathedral*, pl. v. *Lectures on Mediæval Architecture*, by

Sir G. G. Scott, ii, 127. *History of English Church Architecture*, by G. G. Scott, jun., 108. *Durham Cathedral*, by the Rev William Greenwell, 4th ed., p. 29. *The Cathedral and Monastery of St. Cuthbert at Durham*, by Gordon M. Hills, *Journal British Archaeological Association*, xxii, 202. *The Builder*, lxiv, 427 (article by C. C. Hodges). A hint of the real plan is given in Raine's *Saint Cuthbert*, p. 94.



PLAN SHEWING THE RECENT DISCOVERIES AT THE EAST END OF DURHAM CATHEDRAL.

conjecture was a perfectly natural one, though it has proved to be erroneous.

The accompanying plan (Plate I) shows the recent discoveries¹ in relation to the existing Norman choir, omitting the eastern transept (or Nine Altars) and the eastern bay of the choir which was reconstructed in the thirteenth century when the eastern transept was built. The Norman work which still remains is shown in solid black, all to the east of this (except what has just been found) having been removed at the erection of the Nine Altars. The lighter shading shows the plan of the foundations below the floor level, and the darker shows the walls above the floor. The parts which actually remain are shown by strong lines, as distinguished from those parts which are conjectural, shown by dotted lines. The wall-arcades are omitted, in order to avoid confusing the plan with unnecessary details.

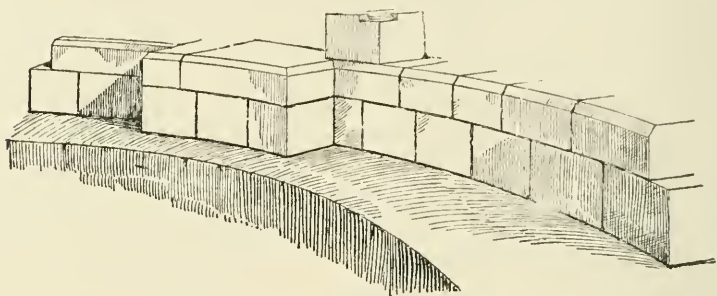
Of the great apse which formed the eastern termination of the choir, the inner face of the northern half was found to be standing, for a length of about 18 feet, to a height of two courses above the floor level, the upper course being a chamfered plinth which formed the sill of the wall-arcade. In this length occurred the plinth of one of the clusters of shafts which divided the semicircle of the apse into three parts.² The lower stone of the corresponding plinth on the opposite (southern) side was also in position. On the south side of the northern plinth, the base of one of the shafts of the internal wall-arcade of the apse was found in position, and proves that this arcade was of the same character as the wall-arcades in the choir aisles. The

¹ Although it was hoped that the exact form of the Norman east end would soon be settled by excavation (Canon Greenwell, *ut sup.*, p. 57), which, in fact, had already been determined on, the recent discoveries were initiated accidentally. In January, 1895, some slight excavations were being made in connection with a proposed new method of heating, under the direction of Mr. C. Hodgson Fowler, F.S.A., the Cathedral architect. One of these was made in the south choir aisle, near its eastern end. Canon Greenwell noticed some peculiarity in the masonry exposed beneath the floor, and told the work-

men to go deeper, and to extend the excavation further to the east. This was done, and the result was the discovery of the foundation of the southern apse. This was followed by the excavation of the foundations of the northern apse, and of the remains of the great choir apse. Mr. Hodgson Fowler, under whose superintendence the excavations were carried out, has made full drawings of what was found, which, it is to be hoped, he will be induced to publish. Most of the masonry uncovered has been made permanently accessible.

² The plan of these clustered shafts shown on Plate I is conjectural only.

accompanying sketch shows what remains of the inner face of the apse. From the level of the bed on which the stone floor was laid, and from the fact that the top of the plinth is at the same level as the top of the corresponding plinths in the choir aisles, it is clear that the floor of the apse was at the same level as the floors of the choir aisles, which again are at the same level as the floors of the nave



PLINTH OF INNER FACE OF CHOIR APSE.

and transepts. We may safely assume that the shrine of St. Cuthbert occupied the same position as it did after the erection of the Nine Altars. It stood, therefore, with its west end on the centre of the chord of the semicircle of the apse. The high altar would no doubt be placed immediately to the west of the shrine. As the floor of the apse would be at the same level as the floor of the choir itself, the altar would only be raised above the general floor level by the steps which may have immediately surrounded the platform on which it stood.

The remainder of the inner face of the apse (beyond what has been described above) and the whole of its external face had been removed to make way for the Nine Altars work, but both the outer and inner faces of the masonry foundation below the floor level were exposed during the excavations for a considerable distance. The total thickness of the foundation was about 14 feet 6 inches. Assuming that the wall of the apse was 7 feet in thickness (the normal thickness of the choir walls), it would stand, as we should expect, over the centre of the wide masonry foundation. In the excavation, on the outer face of the apse, a quoin-stone of a chamfered plinth was found, though not in position. This has been placed

on the foundation wall in such a manner as to indicate that it is not *in situ*. This stone is slightly convex on the face, and clearly belongs to the plinth of one of the external buttresses of the choir apse. From the width of this stone, it appears that these buttresses had the same projection as the buttresses of the choir aisles (about 16 inches).

The internal width of the choir apse was (as nearly as can be ascertained from what remains) about 2 feet 4 inches less than the internal width of the choir¹ itself, and the apse walls were therefore set in about 14 inches on each side from the face of the choir walls. How this was managed, and what was the exact plan of the wall-piers on the springing-line of the apse, and of the oblong bay which intervened between the apse and the great sanctuary arch, cannot be determined with any certainty. My plan of these parts is merely a suggestion of a probable arrangement.

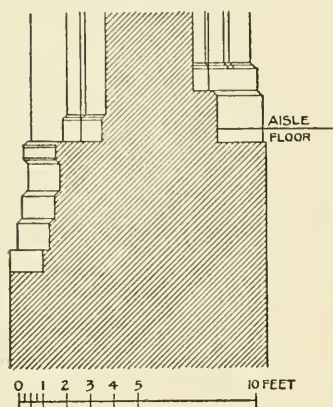
Of the terminations of the choir aisles everything had necessarily been removed, at the time of the building of the Nine Altars, to some distance below the floor level.² But the masonry foundations remain, and in both cases are apsidal on the inside and square on the outside. The apse at the end of the south aisle has been only partially excavated, but the apse of the north aisle has been entirely cleared out. Its width, north to south, between the foundation walls, is 9 feet 8 inches. It is not quite central with the aisle, the object being doubtless to give a broader set-off to the (higher) choir wall than to the (lower) wall of the aisle. The foundation of the apse of the south aisle seems to have been set out in the same manner.

Some surprise has been expressed at the great width of the foundations of these aisle apses, but all the walls have a very wide masonry foundation. The outer face of the foundation of the north aisle wall may be seen in the eastern bay, next to the Nine Altars, and the inner face was exposed during the recent excavations, when it was

¹ I should perhaps say that I use the term "choir" to mean the two great double bays of the eastern arm of the church, without reference to the ritual choir.

² The general floor level of the Nine Altars is 2 feet 8 inches below the floor level of the choir aisles.

found that this inner face (at B on Plate I) was exactly in line with the inner face of the apse foundation on its northern side (at A). The foundation wall of this aisle was found to be 10 feet 10 inches in thickness, being made sufficiently thick to receive the projection of the buttresses and their plinths on the outside, and of the



SECTION OF FOUNDATION OF WALL
OF NORTH CHOIR AISLE.

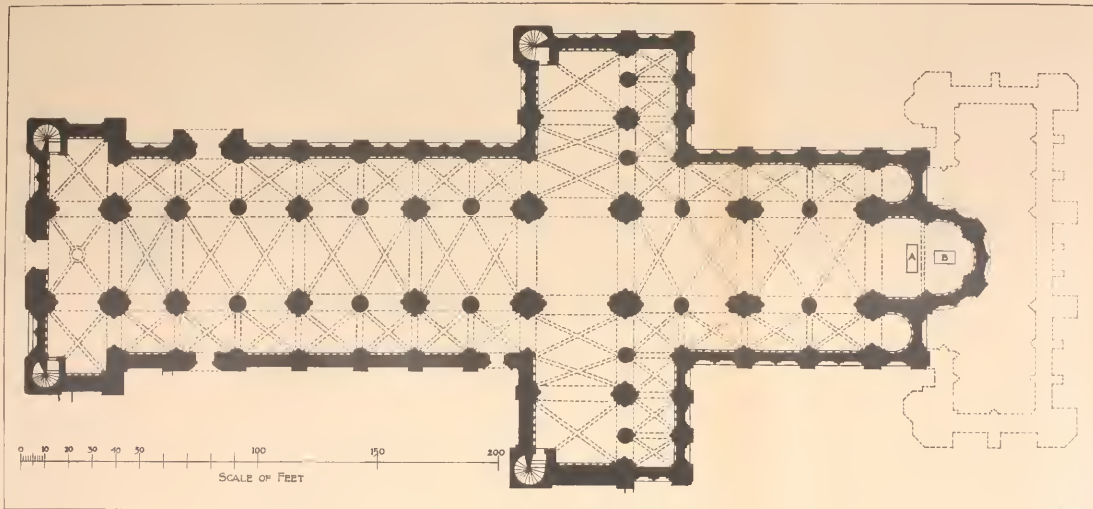
vaulting shafts and their bases on the inside, as shown on the accompanying section.¹ The thickness of the foundation of the apse at the end of the north aisle is 12 feet 11 inches (east to west), and of the apse of the south aisle 13 feet 1 inch. In neither apse do the walls show any indications of junctions of masonry, as would have been the case if (as has been suggested) the outer and inner faces of the apse foundations were of different dates. The

depth of the apse foundations was ascertained only in the case of that of the north aisle. Here the bottom of the masonry is 14 feet 3 inches below the level of the aisle floor, and the wall is built on the solid rock. Subsequent excavation further to the west has shown that the foundation of the wall of the north choir aisle goes down to nearly the same level as that of the aisle apse, and that it is also practically built on the rock, which is here sloping away towards the east. The facts that the foundations of aisle wall and apse wall are of corresponding width, are in exactly the same line, and are of practically the same depth, sufficiently prove that both belong to the same work, and that the aisle apse foundations are part of the original eastern termination of Carilef's church.

The recent excavations have thus demonstrated the general arrangement of the plan of the eastern termina-

¹ The set-off on the inside was not wide enough to receive the greater projection of the wall-pier which supported the main arch across the aisle in front of the apse. The foundation of this pier does not go down so low as those of the aisle and apse walls, but it is

bonded into the wall at the back of it. The explanation is simply that, in laying the lower courses of the foundation work, the greater projection of this pier (compared with that of the ordinary vaulting-shaft) was overlooked.



PLAN OF THE NORMAN CATHEDRAL OF DURHAM.

tion of the Norman church. The choir ended in a great apse of five bays, or rather in a semicircular apse divided into three bays, with an oblong bay intervening between the apse and the great sanctuary arch at the east end of the two great double bays of the choir. The aisles terminated in apses internally, but finished square externally in line with the springing of the great choir apse. Plate II shows the general plan of the Norman church, with the original eastern termination as ascertained from the excavations.

I propose now to consider the position which the Durham plan occupies (as regards its east end) in relation to the plans of the corresponding part of the great Norman churches, both in this country and on the other side of the Channel. In order to facilitate this comparison, I have shown, on Plate III, the plans of eight Norman east ends, reduced to the same scale as the general plan of Durham (Plate II).¹

Confining our inquiry to the larger churches, viz., those whose eastern arms are provided with aisles, we find that the eastern terminations of most of the Norman churches of the eleventh century and the early part of the twelfth conform to one of two general types—(1) those in which the choir aisles are continued round the apse as an ambulatory, generally with radiating chapels beyond, and (2) those in which the choir aisles stop at the springing of the choir apse.

Of the first type, of which the great church of St. Martin of Tours may be considered the prototype, the abbey church of Fécamp appears to be the solitary example in Normandy during the period under consideration. The ambulatory (generally with radiating chapels) was more common in England, and was adopted at Winchester (commenced 1079), Worcester (1084), Gloucester (1089), Tewkesbury (founded 1087), Norwich (1096), and Bury St. Edmunds.² The chapel in the Tower of London (c. 1080) also has an ambulatory.

The second type of east end, in which the choir aisles stop at the springing of the choir apse, is more imme-

¹ At the end of this paper I have added some further notes on these plans.

² Mr. Micklethwaite's plan of the Con-

fessor's church of Westminster shows an apse with ambulatory. *Archæological Journal*, li, 14.

diately connected with my present subject, and may be said to be the normal plan of the larger churches of Normandy in the eleventh century. We find it in what is perhaps the earliest important church still existing in Normandy, the abbey church of Bernay, founded in the earlier years of the eleventh century by Judith, the wife of Duke Richard II. The choir of Bernay is two bays in length (exclusive of the apse), with aisles finished square, both externally and internally.¹ Dehio and von Bezold attribute the plan to Cluniac influence.² M. Ramée's plan of the original choir of the Abbaye-aux-Hommes (Saint-Étienne), Caen,³ shows the same arrangement. I am not aware whether this plan is based upon any actual remains, but it seems probable enough when we find the same plan adopted in the parish church of Saint-Nicolas, Caen, commenced about 1083, and built under the immediate influence of the monks of Saint-Étienne. The choir of Saint-Nicolas is also of two bays, with a semicircular apse beyond; the aisles are finished in line with the springing of the apse, square externally, but with shallow apsidal recesses internally. The abbey churches of Cerisy-la-Forêt (Manche), Lessay (Manche), and Saint-Georges-de-Bocherville (Seine-Inférieure), and the priory church of Saint-Gabriel (Calvados) follow the same plan. So also does the abbey church of Montivilliers (Seine-Inférieure), except that its choir is three bays in length, instead of two as in the other examples. It seems probable that at Cerisy and Lessay the ends of the choir aisles were finished with square recesses internally, but the triforium stage at Cerisy has apsidal recesses at the east end.⁴

The motive for giving the ends of the aisles a square exterior is sufficiently obvious. The aisles were necessarily covered with lean-to roofs, and the square exterior made it possible to finish the roof with a half-gable,

¹ See plan and notice by G. Bouet in the *Bulletin Monumental*, vol. xxxi, p. 95. The apse at Bernay has been destroyed. M. Bouet's plan shows a polygonal apse, but the original form must have been semicircular (as shown in Dehio and von Bezold's reproduction of Bouet's plan).

² *Die Kirchliche Baukunst des Abend-*

landes, by G. Dehio and G. von Bezold, p. 272.

³ *L'Histoire générale de l'Architecture*, by Daniel Ramée. The plan is reproduced in Ruprich-Robert's *L'Architecture Normande*, p. 63, and in Fergusson's *History of Architecture*, 2nd ed., i, 514.

⁴ See notes on the plans at the end of this paper.

clearly the most natural and satisfactory plan. In the few examples of choir aisles with apsidal terminations, both externally and internally, the aisles were either finished with a half-gable, against which the apse roof abutted, as at Sainte-Trinité, Caen, or an attempt was made to continue the lean-to roof over the apse, with anything but a satisfactory result, as at the church of Guibray, at Falaise.

We have no complete example remaining in England of the plan under consideration. But, although the plans of Norman churches in England were much more varied than those of Normandy, sufficient evidence remains to prove that this type of eastern termination was by no means uncommon. Professor Willis' conjectural plan of Lanfranc's choir at Canterbury shows a choir of two bays, with semicircular apse beyond, and with aisles finished square in line with the springing of the apse.¹ The choir of Lincoln as built by Remigius (c. 1075–1092) followed this plan.² There is some evidence that the original east end of Ely (commenced by Abbot Simeon, c. 1080) was of the same type, though with a choir of four bays.³ When Abbot Paul, who was related to Lanfranc, and had been a monk of Saint-Étienne, Caen, began to rebuild St. Alban's in 1077, he adopted a choir of four bays (double the usual number in Normandy), with an apse beyond, and finished the ends of the choir aisles square externally with apses internally.⁴ The aisle apses at St. Alban's seem to have resembled those at Durham in their great depth from east to west. It is not unlikely that Abbot Paul's plan was the precedent followed by Carilef's architect at Durham in 1093. The plan of Peterborough (commenced in 1117) was evidently inspired to a considerable extent by the plan of Durham. It has a choir of

¹ *The Architectural History of Canterbury Cathedral*, by Professor Willis, p. 38.

² *The Architectural History of Lincoln Cathedral*, by the Rev Precentor Venables, in the *Archæological Journal*, xl, 173. *The Builder*, lii, 755. The foundations show a choir of two bays and an apse. Nothing seems to have been found to indicate the terminations of the aisles, and it has been suggested that the choir was aisleless. It appears

to be clear, however, that the plan was of the same type as Canterbury and Saint-Étienne and Saint-Nicolas, Caen.

³ *The Architectural History of Ely Cathedral*, by the Rev. D. J. Stewart, p. 29.

⁴ For an account of the remains of the foundations of the east end, see *The History of the Architecture of the Abbey Church of St. Alban*, by J. C. and C. A. Buckler, 1847.

four bays and an apse, and its east end shows signs of advance on the Durham plan. The great apse at Peterborough is proportionately much less in depth from east to west than that of Durham, and its division into five bays is better contrived. The aisle apses, too, are of much less depth, and do not project eastward so far beyond the sanctuary arch.¹ They bear a general resemblance to the apsidal recesses of the Normandy churches rather than to those of St. Alban's and Durham. The abbey church of Selby (early 12th century) also shows signs of Durham influence, and had a somewhat similar eastern termination, with a choir two bays in length.² The abbey church of Romsey (first half of 12th century) presents the only complete example in England of aisle terminations of the kind under consideration.³ The choir aisles are four bays in length, with apses at the east end, finished square externally. The choir is only three bays in length, the eastern bay of the aisles being continued by a transverse aisle across the square east end of the choir, with two arches which gave access to an eastern chapel.⁴

¹ The inner line of the foundation of the apse at the end of the south choir aisle at Peterborough is now indicated by a step in the pavement. I am indebted to Mr. J. T. Irvine for details of this plan.

² *The Architectural History of Selby Abbey*, by C. C. Hodges, in the *Yorkshire Archaeological Journal*, xii, 344.

³ With regard to choir aisles terminating in apses internally, with square exteriors, I have confined my remarks to examples in England and Normandy, but it may be of interest to mention a few instances in other countries. Ruprich-Robert (*L'Architecture Normande*, note to p. 60) suggests that the plan came from Lombardy, and refers to examples from the province of Como. S. Abondio, near Como (11th century), has double aisles terminating eastward in this manner. S. Fidelio and S. Jacopo, Como (both 12th century), have single aisles similarly finished. S. Maria del Tiglio, near Gravedona (end of 12th century), is a church of a single span, but has apses of this kind flanking the principal eastern apse. See plans of these churches in *Étude sur l'Architecture Lombarde*, by F. de Dartein, plates 75, 82, and 88, and page 339. Apses of the same kind, however, are to be found in

several churches in the south of France, illustrated in H. Revault's *Architecture Romane du Midi de la France*, some of which appear to be of a much earlier date than those quoted above. St. Quenin de Vaison (Vaucluse), probably of the Carolingian period, has small apses recessed in the wall flanking the principal apse, and placed obliquely (vol. i., pl. xix). The principal apse of the conventual church of Vaison is finished square externally, and is attributed to an even earlier date (vol. ii, pl. xxi). Apses of this kind flanking the principal eastern apse are found in the church of St. Pierre de Maguelonne (Hérault) (vol. i, pl. xlv), and in the abbey church of Montmajour, near Arles (vol. ii, pl. xxxi), while the Cistercian church of Thoronet (Var) has two such apses on the eastern side of each transept (vol. ii, pl. xiv). See also plans in Delio and von Bezold's work. The practice of recessing an apse in a straight wall is, of course, found in Roman work, both Pagan and Christian, and was frequent in the East.

⁴ Paper by the Rev. J. L. Petit in the Winchester vol., *Archæol. Inst.*, 1845. Plan in *The Builder*, Abbey series, lxix, 236.

The consideration of these analogous plans suggests questions as to the details of the Durham plan, the answers to which must necessarily be open to doubt, on account of the scanty nature of the remains of the east end. Still it may be of interest to discuss some of these points, though we may arrive at no certain conclusions.

There can be no doubt whatever that all three apses were covered with stone vaults. The most probable form of vault for this date would be a semi-dome, and it is most likely that the aisle apses were so covered. But in a church which exhibits vaulting constructions so much in advance of most contemporary work, it is impossible to say what expedient may have been adopted in vaulting the choir apse. We cannot even say positively whether the plinths which project on the inside of the apse carried vaulting-shafts, or whether they supported a series of great wall-arches over the lower windows, such as we find at Saint-Nicolas, Caen,¹ Cerisy-la-Forêt, Saint-Georges-de-Bocherville, and (in a less marked degree) at Lessay. Possibly one at least of the shafts which stood on each plinth was carried up as a vaulting-shaft, and received one of the ribs on the surface of a semi-dome; while the oblong bay in front of the apse may either have been covered with a barrel-vault, or (perhaps more probably) with a quadripartite vault, as the choir itself certainly was before the existing vault was built in the thirteenth century.² But whatever may have been the form of the vault, there can be little doubt that the cracks which, we are told, had rendered the east end unsafe before the commencement of the Nine Altars were caused by the thrust of the vault on walls insufficiently abutted. The nature of the foundations forbids the assumption that the failure of the apse was due to settlement; indeed, if this had been the cause of the weakness, it would have shown itself in other parts of the church. The thrust of the choir vault was counteracted by the semicircular arches (or rudimentary flying buttresses) beneath the roof

¹ This apse is illustrated in detail in Pugin and Le Keux's *Architectural Antiquities of Normandy*, plates 18 and 19.

² In the plans of the Normandy apses (plate iii), it will be noticed that immediately west of the curved walls of the

apse there is a broad wall-space (corresponding more or less with the depth, east to west, of the apsidal ends of the aisles), which is covered with a barrel-vault. This wall-space is analogous to the oblong bay at Durham.

over the triforium, but the walls of the apse had no such abutment—hence, doubtless, their failure.¹

I have already mentioned that the internal width of the choir apse was about 2 feet 4 inches less than that of the choir itself. In connection with this fact the manner in which early Norman apses were roofed is worthy of attention. In Normandy, apses of this kind were invariably roofed at a lower level than the choir, the roof of the apse abutting against the gable, which formed the eastern termination (externally) of the choir itself. The same treatment is also found in some Norman churches in this country, and is in fact common to the Romanesque styles in all countries. The apse is thus treated as a separate architectural feature, attached, as it were, to the eastern gable of the choir, and very generally of less width than the choir. The question is naturally suggested, Was the Durham apse roofed in this manner? If so, the choir gable must have been at the springing of the curve of the apse (*not* over the great sanctuary arch), and there must have been another great arch at this point to carry the gable. In his conjectural sketch of St. Alban's,² Sir G. G. Scott shows the choir roof continued over the apse, as at Peterborough, where the apse is of the same width as the choir, though it is not certain whether this was the case at St. Alban's. The break between apse and choir at Durham *may* have been disguised by stair-turrets flanking the apse, but of these there is no evidence either way. The usual position of such turrets is in line with the great sanctuary arch, but it is almost certain that there were no turrets in this position at Durham.³ On the whole, I am inclined to think that the roof of the apse abutted against a gable, as in the Normandy examples, but, in view of the scanty nature of the evidence, I merely put this forward as a possible conjecture.

¹ See Viollet-le-Duc, *Dict.* iv, 26, on the failure of Romanesque vaults. Mr. J. T. Irvine informs me that the apse vault at Peterborough cracked and thrust out the walls, and was consequently removed in the thirteenth century, when the old vaulting-shafts were lengthened upwards to the flat

wooden ceiling which replaced the vault.

² *Lectures on Mediæval Architecture*, ii, 100.

³ There was a stair in the aisle wall on each side from the floor of the triforium to its roof, but there is no indication on either side of any staircase in the choir walls.

I have already noticed incidentally the great depth of the apses which terminate the aisles. They extend, in fact, beyond the sanctuary arch as far east as the end of the oblong bay of the central span. This is the only point in which the east end of Durham differs from other analogous examples, except St. Alban's. It is possible that the necessity of providing space behind the high altar for the shrine of St. Cuthbert at Durham, and for that of St. Alban at St. Alban's, may have led the builders of these churches to allow greater length between the sanctuary arch and the great apse, and that the great depth of the aisle apse may have been the result of the same cause.

I ought not perhaps to conclude this paper without referring to a theory which has been advanced—that the foundations of the smaller apses which have been discovered at the ends of the choir aisles do not belong to Carilef's church, but are part of the church erected by Bishop Aldhun in 996-999, and that they may possibly be the foundations of apsidal chapels on the east side of the transept of that church. The only arguments which (so far as I am aware) have been urged in support of this theory, and which have not already been dealt with above, are that some of the masonry on the inner face of these smaller apses is constructed of stones which are longer in proportion to their height than is usual in Norman masonry; that these stones are not axed diagonally, but exhibit tooling of a kind which is characteristic of pre-Conquest work, and that fragments of plaster are still to be seen adhering to some of these stones. In no case, however, does any of this plastering extend over a joint, and no plastering is to be found on any stones which are worked on the face to the curve of the apse. All the indications, in fact, are perfectly consistent with the supposition that the Norman builders simply reused the material of the older church, which, we are told, they took down before they commenced the new church, and when we examine the whole of the evidence there cannot, I think, be the least doubt about the matter.

In the first place, it is extremely unlikely, on the face of it, that any part of Aldhun's church extended so far east as these aisle apses, and still more unlikely that

transeptal apses could have done so. It is believed that fragments of the work of Walcher, the first Norman bishop, still exist on the east side of the cloister, to the south of the chapter-house, and it is practically certain that the crypt under the refectory was built during Carilef's exile (1088-1091), whereas the new church was only commenced in 1093, after his return. It is therefore most probable that the cloister of the earlier church occupied part of the site of the existing cloister, and that the church itself occupied much the same position in relation to the present church as did the pre-Conquest church at Peterborough (the foundations of which were found a few years ago) to the Norman church there. We know that Aldhun's church was much smaller than the Norman church, and it is therefore improbable that any part of it extended very far east of the present crossing.

But a much more conclusive argument against such a theory is that it involves the supposition that Carilef's architect purposely laid down the plan of his entirely new building in such a manner that his choir aisles were practically central with the transeptal apses of the pre-Conquest church. He must thus be assumed to have allowed the elementary width of his new building and the position of his east end to be entirely governed by the width between the centres of the transeptal apses of the earlier church, and this while adopting a plan for his new church which, as we have seen, was perfectly normal in the latter part of the eleventh century. And the only motive he can have had for tying his hands in this extraordinary manner was the retention of two quite considerable fragments of foundation work, for only the apsidal inner face (and not the square outer face) was supposed to be Aldhun's work. The facts that the sides of these apse foundations are (as I have explained above) exactly in line with the foundations of the walls of the undoubtedly Norman aisles, and that the foundations of both go practically to the same depth, are alone sufficient to dispose of such a theory.

There can, therefore, be no doubt that the foundations recently found belong to the Norman church, and that their discovery has enabled us to determine the general



1900-1910

1910-1920



ST ALBANS



ST NICOLAS CAEN



PETERBOROUGH



MONTIVILLIERS



CERISY-LA-FORÊT



LESSAY



ST GEORGES DE BOCHERVILLE



ST GABRIEL



lines of the plan of the eastern termination of Carilef's noble structure. We may even, by the exercise of a little imagination, call up a picture of the church as its Norman builders left it. It would be foolish to regret the loss of this missing part of the Norman church, since we are more than compensated by the perfect beauty of the Nine Altars. But we may congratulate ourselves on thus being able to add something to our knowledge of the planning of the great Norman churches of the half-century following the Conquest, and on the recovery of the only missing portion of the plan of this preeminently the grandest Romanesque monument in our country.

Notes on the Plates.

PLATE I.

PLAN SHOWING THE RECENT DISCOVERIES AT THE EAST END OF DURHAM CATHEDRAL.

Described on p. 5, *ante*.

PLATE II.

PLAN OF THE NORMAN CATHEDRAL OF DURHAM.

Based chiefly on Billings' plan. The position occupied by St. Cuthbert's shrine, since the 13th century at least, is indicated at B, and the position of the high altar at A. The 13th century extension at the east end (or Nine Altars) is indicated by dotted lines.

PLATE III.

PLANS OF NORMAN EAST ENDS.

To the same scale as the plan of Durham on Plate II.

ST. ALBAN'S.—Based chiefly on Buckler's plan. Commenced in 1077. Choir of four bays and apse. Aisles covered with unribbed groined vaults. The terminations of choir and aisles have entirely disappeared, and the original plan is indicated only by remains of foundations. Width of choir about 31 feet (assuming that the choir was of the same width as the nave).

PETERBOROUGH.—Commenced in 1117. Choir of four bays and apse. Apse only was vaulted originally. Aisles covered with ribbed groined vaults. The aisle apses have been destroyed, but their foundations remain. Width of choir, 36 feet.

CERISY-LA-FORÊT (Manche).—Abbey church, founded 1030–1035 by Robert le Diable, and finished in the reign of William the Conqueror. Ruprich-Robert thinks that the present church is a reconstruction (consecrated 1150). Choir of two bays and apse. Choir separated from the aisles by solid walls (as at St. Alban's). The clerestory of the

apse has been altered, and the vaults of choir and apse are later. Aisles covered with unribbed groined vaults. The ends of the aisles have been altered by the insertion of late tracery windows, but, as the covering indicates a barrel-vault rather than a semi-dome, the recesses shown on the plan seem to be more probable than apses. In the triforium stage there are apsidal recesses at the east end, covered with semi-domes (plan shown at A). Width of choir, 33 feet 6 inches.

SAINT-GEORGES-DE-BOCHERVILLE (Seine-Inférieure).—Abbey church, founded 1050–1066, but the existing church seems to be of the first half of the 12th century. Choir of two bays and apse. Choir covered with unribbed oblong groined vault; apse with ribbed semi-dome. Aisles covered with unribbed groined vaults; apses with semi-domes. Width of choir, 28 feet 3 inches.

SAINT-NICOLAS, CAEN (Calvados).—Parish church (now desecrated), commenced c. 1083. Choir of two bays and apse. Choir covered with unribbed oblong groined vault; apse with semi-dome. The high-pitched stone roof over the apse is an addition of the 13th century. Aisles covered with unribbed groined vaults. The ends of the aisles have been altered by the insertion of late tracery windows, but the remains of semi-domical vault indicate apsidal recesses. Width of choir, 28 feet.

MONTHIVILLIERS (Seine-Inférieure).—Abbey church. Choir of end of 11th century. Choir of three bays and apse. The lower part of inside of apse is concealed by woodwork, and the upper part has been much altered. Aisles covered with unribbed groined vaults; apses with semi-domes. Width of choir, 27 feet.

LESSAY (Manche).—Abbey church, of the end of 11th and first half of 12th century. Choir of two bays and apse. Choir covered with ribbed quadripartite vaults; apse with semi-dome. Aisles covered with unribbed groined vaults. The square recesses at the east ends of the aisles seem to be original, though they are shown apsidal on Ruprich-Robert's plan. Width of choir, 24 feet 6 inches.

SAINT-GABRIEL (Calvados).—Priory church. Choir only remains, of second quarter of 12th century. Choir of two bays and apse. Choir covered with a ribbed quadripartite vault over the two bays, with central transverse rib carrying an undergirding wall; apse covered with semi-dome. Aisles covered with unribbed groined vaults; apses with semi-domes. Width of choir, 22 feet. (This plan is based on Plates 80–82 in Ruprich-Robert's *L'Architecture Normande*.)

The width of the choir given above is in each case the clear width between the walls inside. Where no authority is mentioned, the plans are from my own measurements. General plans of most of the Normandy churches are given in Ruprich-Robert's *L'Architecture Normande*, plates 8, 54, and 93.

NOTES ABOUT DUMB BELLS.

By R. S. FERGUSON, F.S.A., Chancellor of Carlisle.

Since the publication in the *Journal* for March, 1895,¹ of a short paper by the present writer, entitled, "On a Dumb Bell at Knole," I have been endeavouring, by the circulation of copies of that paper, by letters to my archæological friends and to experts in campanology, and by the insertion of a paragraph in *Notes and Queries* of June the 29th, 1895, to gain some further information on the subject of dumb bells.

The present of a copy of the paper brought a speedy reply from Mr. Albert Hartshorne, F.S.A., saying that he had seen contrivances similar to that at Knole, or the wrecks of them, in church towers, where they are usually dismissed, as windlasses for raising bells into the towers, instead of being recognised as practice dumb bells. He further wrote, "In the tower of Bradbourne Church there is a complete and ancient example of a dumb bell," and kindly sent sketches and particulars, which will presently be utilised for the supplying a description of the contrivance.

But on the other hand Dr. Raven, F.S.A., writes me as follows :—

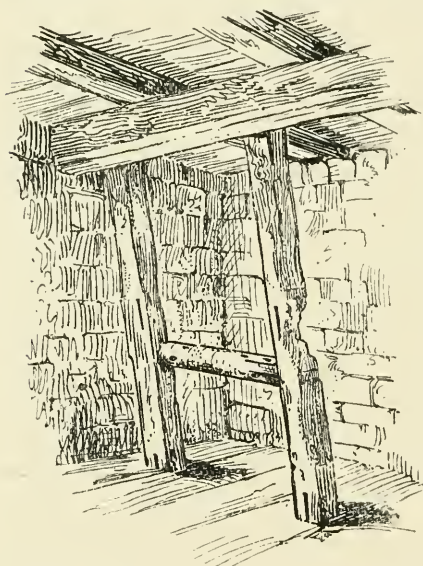
With regard to windlasses, I think Mr. Hartshorne must be wrong. Of the hundreds of towers which I have climbed in all parts of England, I never saw anything which could be suspected of *mute-tintinnalogy*. The best windlass I know is at Mildenhall coeval with the mediæval lawsuit recorded in the year-book of 1469, and explained in my *Church Bells of Suffolk*, pp. 46–52.² It is placed close by the great opening in the frame through which the bells were lifted, and there can be no doubt of its intent.

One fails to see the object of a permanent windlass in a church tower ; church bells once hoisted into position are not likely to be lowered again for some half century or so ; while both the hoisting up and the lowering down

¹ *Archæological Journal*, vol. lii, ² *i.e.*, the lawsuit, not the windlass.
p. 45.

can be much better accomplished by a tackle suspended for the occasion from the great beam of the tower roof, or otherwise (a thing any builder's labourer could do¹), and by a crab placed at the bottom. It is, however, impossible to suggest that the Mildenhall contrivance, coeval with a mediæval peal in existence in 1469, can be a dumb bell, for the practice of change-ringing did not exist in England until the beginning of the 17th century.²

Bradbourne church, of which Mr. Hartshorne is one of the churchwardens, is in Derbyshire. Its tower contains a peal of five bells, recently augmented to six. The



dumb bell, of which an illustration is given from a pen-and-ink sketch by Mr. Hartshorne, stands in a corner of the chamber in the tower immediately below the bell chamber; it is not in such a position as that it could, if a windlass, be conveniently used for raising the bells. It is of very massive construction, and consists of two stout oak parallel beams, framed and notched into the beams of the floors above and below, and making an

angle of about 80 degrees with the floor on which they stand. They are 3 feet 10 inches apart, and carry a horizontal oak roller. This roller has two holes at right angles to each other through each end; and one end, which we will call A, has in addition a third hole through it.

¹ How it was done at Bradbourne is quite apparent: the great beam of the tower roof, which is very ponderous and old, dating from about 1450, has a hole bored horizontally through it, which hole Mr. Hartshorne says must have been bored before the beam was placed *in situ*. When the bells were to be

raised, a crow-bar would be passed through this hole, round the ends of this a looped chain would be passed, and from this chain the block and tackle would be hung.

² Fabian Stedman, *Tintinnalogia*, 1688, cited in Raven's *Church Bells of Cambridgeshire*, pp. 76, 77.

This is exactly the arrangement of the roller of the Knole dumb bell: the two through holes at either end being to carry the weighted arms, of which the Bradbourne example is now deprived, while the rope was passed through the third hole at the end A, and secured by a knot; it was then coiled round the roller towards the other or B end. The Bradbourne roller shows marks, particularly towards the B end, of much wear by the rope, thus proving that the machine has at one time been much used. This could not have been the case had it been a windlass for raising the bells. But there is no sign of it having been a windlass; there is no sign of any handle with which to raise a weight such as a bell; no means of doing so, except by putting spokes into the through holes in the roller; and there is no sign of ratchet and pall to prevent a bell from overpowering the men, who were endeavouring to raise it, taking charge of the machine, and running down to the ground with frightful velocity to the destruction of the bell.

It will be noticed from the illustration that the main timbers of the Bradbourne dumb bell are old beams re-used. Mr. Hartshorne, who has carefully examined them, has come to the conclusion that they came from a bell-frame in Bradbourne church tower, which frame was taken down in the reign of Charles II. (1660–1685), and replaced by one which has in its turn been taken down in the present year, 1895, by men from the famous Loughborough Bell Foundry, when the bells, with the addition of a sixth, were re-hung.¹ This gives us the reign of Charles II. as the date of the Bradbourne dumb bell, a very likely period for the parishioners of Bradbourne to be keen about the new and fashionable exercise of change-ringing, the very period (1667, &c.) when the Cambridge printer, Fabian Stedman, was reducing the art of change-ringing to a system, printing his changes on slips of paper, and teaching them to his ringers at S. Benedict's, Cambridge.²

¹ Messrs. Taylor, of Loughborough, have pointed out that the frame taken out in 1895 was originally for four bells only, but had been altered in 1736 to hold five.—*Bradbourne with Ballidon*

Parish Magazine, Christmas Number, 1895.

² See Raven's *Church Bells of Cambridgeshire*, *ut ante*.

It remains to be mentioned that the foreman of the Loughborough men at once recognised the Bradbourne contrivance as a dumb bell for teaching young ringers to ring, and referred Mr. Hartshorne to one at Cirencester.

There was some difficulty at first in getting information about the Cirencester example; it had, apparently, been forgotten, as the two following letters from the Vicar of Cirencester (the Venerable Archdeacon Hayward) show:—

July 12th, 1895.

A wheel without a bell attached to it was put up years ago in what we call the Town Hall, adjoining the church, but I never heard of its being used, and certainly it has had no rope to it during the time of my incumbency, and no young ringer has been taught on it.

October 19th, 1895.

My dear Sir,

Absence from home has precluded my personal examination of our dumb bell till now. As I expected, Taylor's man is under a misapprehension. There is neither sliding bar nor block, and no one can tell me when it was last used.

Through the kindness of Messrs. Taylor of Loughborough, I got into communication with Mr. Ernest P. Harmer, of Tetbury, a member of the Gloucester and Bristol Diocesan Association of Change Ringers, who furnished the following account of the dumb bell at Cirencester:—

The "dumb bell" in the upper portion of the Town Hall at Cirencester is a contrivance made some twenty-five years ago by Mr. William Hinton, the then leader of the ringers (and who about that time re-hung the bells in the tower), for the purpose of instructing a newly formed band of ringers in the art. It consists of a wheel and rope, and you can "get it up" (or could, until it was damaged) just the same as a bell, in place of which there is a weight of wood. I say "until it was damaged," for I do not think it can now be "raised" owing to something having gone wrong. If you write to Mr. F. Gardner, Dyer Street, Cirencester, he, being on the spot, could give you full particulars, and perhaps a sketch.

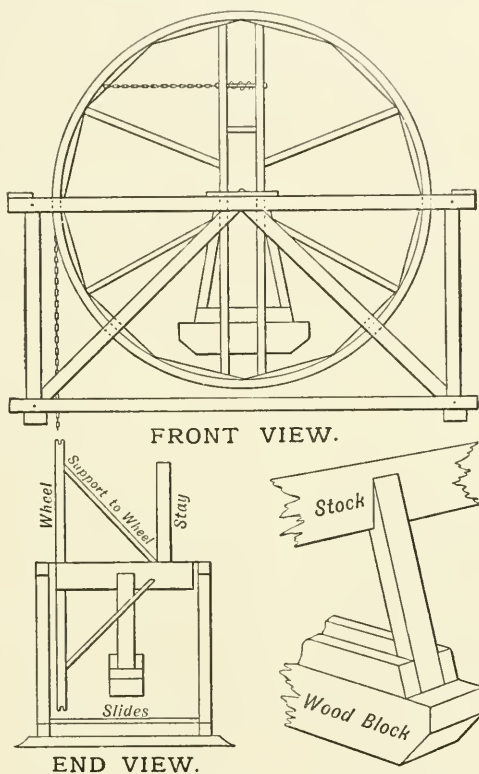
Thank you for your interesting pamphlet.

Yours respectfully,
E. P. HARMER.

A letter to Mr. Gardner produced the following interesting information:—

The "bell" to which you refer was made by the late Mr. William Hinton. It was erected about twenty years ago for the purpose of

instructing a newly formed band of ringers how to handle a bell, and thus prevent damage to the tower bells. The "bell" is not in the turret as you have been informed, but is in the building which connects the Town Hall to the church. There is a raised platform against the back wall of the hall, and from this platform a door opens into a small chamber behind, in which hangs the rope of the "bell"; the bell itself is on the floor of the chamber above; this is reached by means of a spiral stone staircase (in the turret). The frame of this bell is made of 4-inch by 3-inch quartering and is 6 or 7 feet long by 3 or 4 feet wide. It is constructed in a very similar manner to an ordinary bell frame, but very much "lighter." The rough sketch I am sending you will, I think, give you some idea. The stone fixed between the two pieces of wood next to the block is to increase the weight. The Town Hall is situate in the market place and, practically speaking, forms part of the building of the Parish Church. The hall is on the upper floor over the south porch.



We have thus two instances of actual dumb bells, that is, of dumb bells used for the purpose of teaching beginners the art of change-ringing; the first dating from the seventeenth century, the second of the nineteenth century. Others there must have been of various dates, and probably had attention been called thereto some time, say forty years ago, several would have yet been in existence, or on record. It might be well, even now, to overhaul the supposed windlasses in view of the fresh light we now have.

I have been unable, as yet, to find in existence any other instance of a dumb bell like that at Knole, a machine

unconnected with bell-ringing at all, but a sort of baby jumper on a large scale, suitable for elderly men, like Addison, Franklin, and University dons.¹ I now proceed to give documentary evidence as to this statement, culled from the columns of *Notes and Queries*.

DUMB BELL.—The origin of this name for the pair of well-known heavy leaden weights used for muscular exercises, is probably little known. They take their name, by analogy, from a machine consisting of a rough, heavy, wooden fly-wheel with a rope passing through, and round a spindle, which projects from one side, the whole apparatus being secured by stanchions to the ceiling of a room, and set in motion like a church bell, till it acquired sufficient impetus to carry the gymnast up and down, and to bring the muscles of the arms into play, though in a less wholesome and more dangerous manner than that now in use by means of its leaden successors. A specimen of the old-fashioned dumb bell still exists in New College, Oxford, though long removed from its original position. (SIGMA. *Notes and Queries*, 2nd series, vol. xii, p. 45. 1861.)

DUMB BELL.—It seems strange that this name should have been given to a thing which has not the slightest resemblance to a bell. . . . It was probably such an apparatus as that described by Addison in No. 115 of the *Spectator* (1711). He says:—"I exercise myself an hour every morning upon a dumb bell that is placed in a corner of my room, and pleases me the more because it does everything I require of it in the most profound silence. My landlady and her daughters are so well acquainted with my hours of exercise that they never come into my room to disturb me while I am ringing."

Franklin, writing to a friend in 1787 (*Life of Benjamin Franklin*, &c., by Bigelow, 1881, vol. iii, p. 370), speaks of his using a machine similar, apparently, to that mentioned in the *Spectator*. He says:—"I live temperately, drink no wine, and use daily the exercise of the dumb bell." Observe, not dumb bells. By the beginning of the present century the dumb bells, as we now know them, had come into use. In *The Miseries of Human Life*, 1807, p. 38, Mr. Sensitive enumerates among exercises: "To keep yourself alive . . . rolling the gravel walks . . . cutting wood . . . working the dumb bells, or some such irrational exertions."

That the use of what we now call a dumb bell should have superseded the cumbersome machine above described is natural enough; but it is curious that a name quite applicable to the machine should have been transferred to an implement utterly unlike it, merely because both were used with the same object of aiding bodily exercise. (J. DIXON. *Notes and Queries*, 7th series, vol. vi, p. 282. 1888.)

I regret to say that all efforts to get particulars of the

¹ Lord Sackville recollects that when a boy he used to fasten a stick to the end of the rope of the Knole Dumb

Bell, and swing up and down on it. *Journal*, vol. lii, p. 46.

dumb bell at New College have failed, as the following letter from the Rev. W. A. Spooner will show :—

I have been having a careful search made in College for the dumb bell. I am afraid all traces of it have disappeared. One or two of the servants remember something of the kind kept in a lumber-room under the Hall, but at the time a passage was made under the Hall this lumber-room was cleared out, and then I fear the dumb bell was broken up ; at any rate, no one has seen it since. I am sorry so interesting a relic should have perished.

APPENDIX.

The enquiry about the New College dumb bell brought to light a dumb bell apparatus, which is described in a letter of Mr. E. J. Day, of the Senior Bursar's office, at New College, who kindly interested himself in the search there :

There is in the tower a dumb bell apparatus, used while change-ringing practice is going on. The bell clappers are tied so that the bells themselves are silent, but they ring small bells fixed in the belfry. This apparatus was fixed some few years ago by the University Society of Change-Ringers, but certainly not so far back as 1860.

I have to thank my old friends Mr. Hartshorne and Dr. Raven, the Archdeacon of Cirencester, Mr. Harmer, Mr. Gardner, Rev. W. A. Spooner, Mr. E. J. Day, and Mr. Haverfield, for their kind assistance.

FURTHER MEGALITHIC DISCOVERIES AND EXPLORATIONS IN THE ISLANDS OF MALTA DURING 1892 AND 1893, UNDER THE GOVERNORSHIP OF SIR HENRY A. SMYTH, K.C.M.G.

By A. A. CARUANA, DIRECTOR OF EDUCATION.

GREAT STONES AT CORDIN, MALTA.

The terraces of Cordin promontory were known long ago to be strewn with the relics of cyclopean structures entombed under mounds of earth and rubbish which had been allowed to accumulate upon them. The task of clearing these remains was undertaken so far back as 1840; but for reasons unaccountable to me the work was abandoned very shortly after it was begun. In my report of 1882 on the Phœnician and Roman Antiquities, the attention of Government was again called to the importance of exploring and preserving these ancient remains. Renewed excavations were begun in May, and continued to December, 1892.

The remains at Cordin are all great stones. They are lying on the slope of the hill towards the inner creek of Marsa, in the north-western extension of the great harbour, and towards the entrance to the French creek. The whole place seems to have been a large oriental sacred area, like that of Hagar-Qim and Mnajdra in Malta, and that of the Ġgantia in Gozo.

Dr. A. L. Adams¹, in 1870, from the apparent smallness of the Cordin stones as compared with the other Maltese megalithic monuments, inferred that they were uncovered dolmens like those in France. Houel, in 1787, had also deemed them dolmens and circles, only the upper portions of the exterior enclosure and one of the lateral apses of the Ġgantia being then visible. Now that they are cleared out, the Cordin great stones show the same configuration as all our like monuments, but having

¹ *Notes on the Nile Valley and Malta.*

formerly been exposed to safe pillage, they have suffered enormously from devastation, and have been greatly reduced in size. When their recent exploration was begun they were found in such a disordered condition that their appearance was only that of confused piles of tall stones mostly buried under the soil, without the least configuration to denote their original arrangement. A great many of the monoliths and tall stones had been broken and carted away to wall up the terraces of the newly cultivated lands in that locality, and to macadamise the neighbouring roads. In this state it was with extreme difficulty that the original plan of some of the cyclopean buildings, once existing on this spot, could be made out, an accurate survey taken, and a description detailed in this memoir.

Of the great stones at Cordin five groups could be distinguished, but of only two of these could a plan be formed, as the others did not present any structure. From extension of area, number of chambers, and situation, one of these two groups was evidently the principal sanctuary of the place. Around it, within a stone's throw from one another, on the bare rock, are the remains of the other four fanes, resembling those on the plain of Haġar-Qim and of the Ġgantia. The trend of the walls of many of the internal chambers and recesses in the main building could be traced in many instances by laying bare the foundations and by the symmetrical position of other compartments *in situ*. Its general configuration was arrived at by a comparison with other better-preserved megalithic monuments existing in the two sister islands.

The accompanying plan in drawing No. 1, executed by Dr. F. Vassallo,¹ the Assistant Librarian, will explain the general appearance of the main monument as it now stands, and will help the description of its interior. The structure still *in situ* is represented by the portions coloured sienna, the parts wanting are shown by hatching.

The main building stood nearly on the summit of the Cordin knoll. Its remains show the same oval-shaped chambers and hidden recesses typical of all our megalithic monuments. Its internal configuration, however, is quite

¹ *Voyage Pittoresque*, Vol. iv, Pl. ccl.

peculiar, and different from the fan-shaped form of Hagar-Qim, or the usual juxtaposition of two pairs of chambers like the Mnaidra, the Melkart temple, it-torri Gawar, and the Ggantia. Two long suites of chambers, communicating with each other, and forming two separate parallel and adjacent rows looking north-west, constitute this monument. These chambers are very similar in plan and dimensions to those of Mnaidra and Ggantia, but not in position.

The extreme length of the enclosure now cleared is 121 feet, and the extreme breadth 100 feet. Its area is 12,100 square feet, but very probably the original extent was far greater, as indicated by some large stones beyond the present enclosure, and apparently connected with it. The greatest length internally of the left row from the main entrance is 118 feet.

Five chambers, A, B, C, D, E, form the left row, the more complete and less disturbed of the two rows. The entrance of chamber A, the first of the row, looks towards the great harbour, like that of Mnaidra and that of Hagar-Qim to the cove of Wied-iz-Zurrieq. The tall stones siding the entrance to this chamber have been removed, but its apsidal form is retained although deprived of the *septa* or screens separating its two opposite lateral apses. Its longer axis measures 38 feet, its shorter one 22 feet. As in all our great stone constructions, this first chamber is comparatively plain and without recesses.

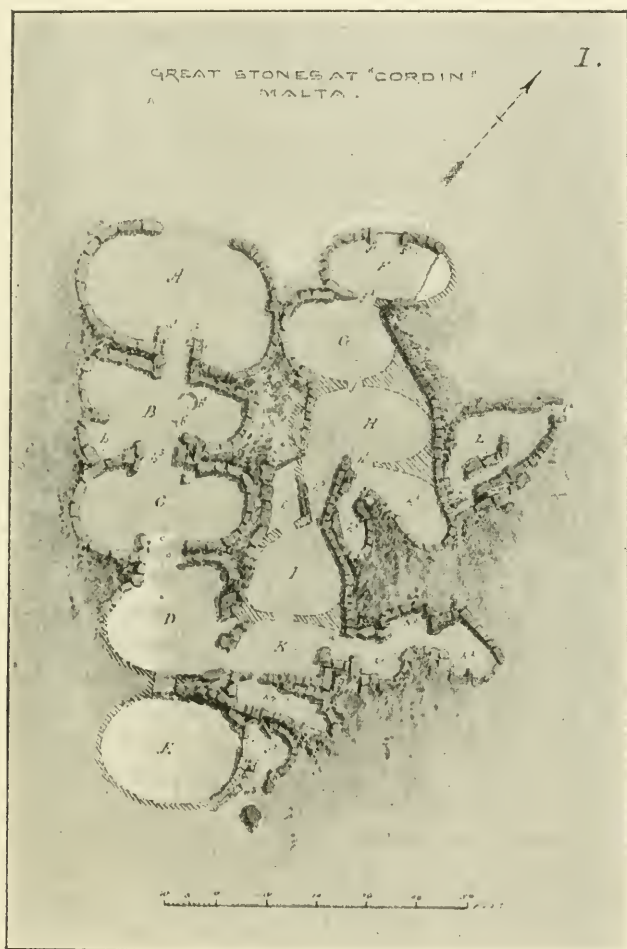
Four tall stones (a^1), two on either side, line the passage to chamber B, opposite the entrance to A. Two monoliths (a^2) form the broken jambs of the doorway.

Chamber B measures 33 feet by over 16 feet. Outside the screen, which originally cut off the right apse of this chamber, there are two holes sunk in the ground, one circular the other rectangular, marked (b^1), like those in the Ggantia, where they are similarly situated. In the left apse there is a recess (b^2) like that at Mnaidra, which interferes with the trend of the following chamber.

The passage from this chamber B to C is marked b^3 . The perimeter of chamber C is entire, as are also the perimeters of A and B. It measures 33 feet by 13 feet; its figure is regular, but its internal arrangement has not been preserved.

The passage to D has two sills, marked *cc*, its level being above that of the others.

Chamber D measures 23 feet by 21 feet. The now incomplete left apse of this chamber can be traced by the foundations of the destroyed wall indicated on the plan



by hatching. Several stones mark the completion of the right apse.

The last in the suite of chambers of the left row is marked E. Its right apse is nearly complete, but the wall of the left apse has been entirely removed. It is 27 feet

long and 21 feet wide. In the wall of the right apse there is one of those mysterious hole-piercings, marked (e^1), so common in our great stone monuments. This opening communicates with the recess beyond (e^2), separated by two sills from a further one (e^3). The whole has the appearance in arrangement of the oracular recess of the inner apartment of Hagar-Qim discovered in 1885, but is of ruder construction.

The distribution of the numerous fittings of the interior right-hand row of chambers appears to have been originally much more complicated, as is the case with all our monuments of a similar nature. The great number of small recesses penetrating the chambers interfered a great deal with their typical configuration, hence this enclosure has been subject to much disturbance, and its internal arrangement to many alterations. The internal length of this right row is 100 feet, and its average breadth 50 feet. Apparently there were originally five chambers, F, G, H, I, K, all except chamber F being in juxtaposition with the corresponding ones of the left row, though without any intercommunication.

The entrance to F, like that to A, looks to the great harbour and the Marsa. Two tall stones (f^1), *in situ*, are the jambs of this doorway. Its enclosure is complete with the exception of a portion of the right apse. It is 25 feet long and 12 feet wide.

The passage (f^2) marks the entrance to the next chamber, G, which measures 22 feet by 15 feet. The left apse of this chamber still remains; the right one has entirely disappeared.

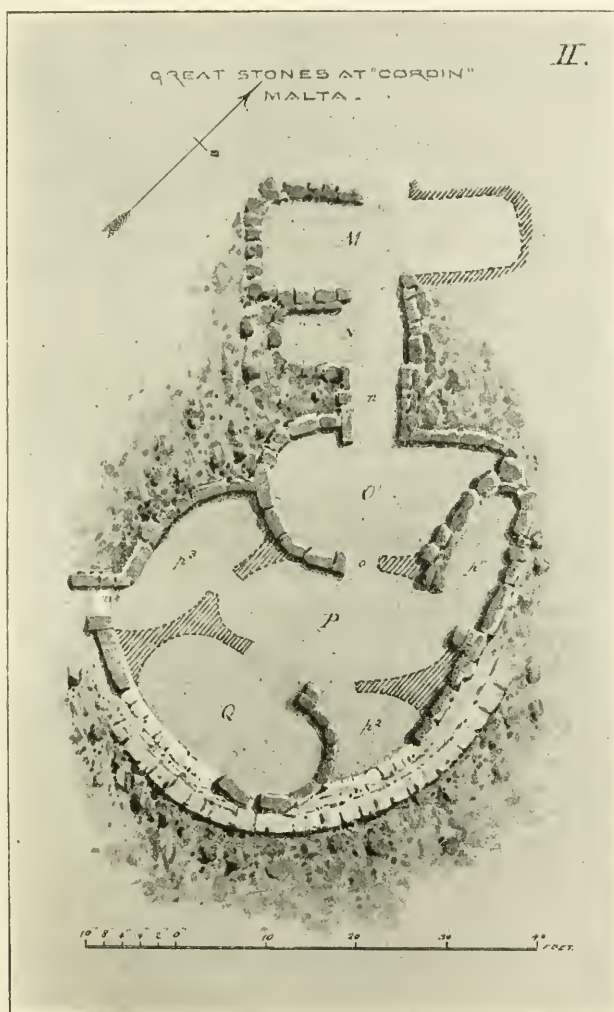
Chamber H, measuring 24 feet by 15 feet, is entered by (g). The configuration of this chamber is much interfered with by the passage (h^1) to the recesses (h^2 and h^3), and the entrance (h^4) to the next chamber.

Outside chamber H and its recesses, to the right there is an adjacent enclosure (L) with a recess (l^1), which has its entrance (l^2) quite independent of that of chamber H. It looks like a cattle-shed or sheep-pen.

The elliptical configuration of the fourth chamber I in the upper portion is not well defined; it was apparently 20 feet by 16 feet. A recess (i) is entered from this chamber.

Chamber K has retained its shape even less on account of the recesses (k^1 , k^2 , k^3 , k^4), anastomosing with it.

Drawing No. II presents the plan of the next minor group as it now stands, the trend of the missing walls



being hatched in sienna. It is an envelope girding several chambers, with an entrance looking north-west like that of the main group. Its extreme length is 72 feet, its breadth is 52 feet.

M, the first chamber of this group is 28 feet by 10 feet. Its left apse is entire, its right one can be traced only by the foundations.

The left apse of N is preserved in its entirety; the right one appears to have been removed, probably for some outside adjacent chamber which no longer exists. Its length, if complete, would be 18 feet by 6 feet.

Chamber O, entered from (*n*), retains its left apse; its right one is interfered with by the recess (p^1) in the next chamber. It measures 22 feet by 13 feet.

P is another enclosure entered from (*o*). It measures 25 feet by 12 feet. Its configuration can be traced by the foundations, but it has otherwise entirely disappeared. Three recesses (p^1 , p^2 , p^3), were annexed to this enclosure. Recess (p^3) had an outside communication (p^4).

The last enclosure Q has retained its right apse entire; the left apse is completely destroyed. Its length is 22 feet, its breadth 12 feet.

In these two groups of great stones, the lower courses only have been preserved. The upper layers have disappeared altogether, so that the spring of the partially domed roofs of the lateral apses cannot be observed as in Haġar-Qim and the Ġgantia.

The principle upon which the Cordin great stones are built is quite different from that of the great stone structures of Haġar-Qim. The exterior and interior facings of the lower courses of stone in Haġar-Qim are formed of large slabs hewn on either side and edge, nicely adjusted sidewise together, and placed upright in the direction of their longer dimensions like Stonehenge. These two facings are propped internally and externally at the lower end by large stones, which also form an ornamental basement. They are bound together above by string layers, which complete the building and give stability to a work of regular masonry. Besides compactness of structure, Haġar-Qim and Mnajdra present unity of design, a general refinement in the interior which is in keeping with the exterior, and an attempt at decoration. In the remains at Cordin, the lower course of stone from front to rear is formed of massive blocks ranged close together on their broad side on the bare rock and heading through the thickness of the wall. These blocks are

alternate with tall stones placed vertically, the spaces between being pointed in with smaller stones or rubble. No signs of corbelling forward or of contracting structures are observable in the walls of the lateral apses. Their interior is very rough, and, though exhibiting an apparent regularity of form, the work is of rude design and unskilful execution. The more rude are apparently the older monuments. The great stones at Cordin, like those of Ġgantia, may therefore point to an earlier and more primitive era than those of Haġar-Qim and Mnajdra. If Fergusson, the author of *Rude Stone Monuments, their Age and Uses*, is right in believing that the more recent of our great stones belong to the era of the Trojan war, 1,200 years B.C., the Cordin great stones are most probably the work of the earliest colonists in Malta, about 1,500 years B.C.

The promontory of Cordin, on which the remains just described stand, is in close proximity to the shores of the inner and commodious creek of the great harbour known as il-Marsa. That harbour was of old, as we are informed by Diodorus Siculus, one of the safest shelters in the Mediterranean for local shipping and the numerous foreign-going vessels. Thus the country round and near it formed the principal thoroughfare for native and foreign trade.

Along the shores of Marsa many balneal establishments were erected. The accommodations and mosaic pavements of these baths have been frequently met with in by-gone times, and recently during the extension of the gasworks in June 1889.

The Romans took great care of and kept in proper repair the mole along the great harbour, of which considerable remains were discovered by Comm. Abela and the Marquis Barbaro. One of its milestones is recorded in the inscription No. VIII of Class XIV in the Report on Local Roman Antiquities, 1882.

Just by the foot of the Cordin promontory there were found in 1768¹ extensive remains of large stores and other premises, which in all probability were used as the Custom-house of the great harbour. There were vats

¹ Report above quoted, Sec. 102.

and stores, with a vaulted roof flanked by galleries with large entrances, with porticoes, and other conveniences, evidently intended for the storage of goods and the commodities of import and export trade. A Roman marble temple of Diana had been erected there. The marble statue and some of the pillars which adorned its shrine were recovered in 1865 and are preserved in the museum of the Public Library.

The old ethnical "Tarxien" denomination of the near village points to an early settlement of Phœnicians in the immediate neighbourhood of Cordin. Numerous pagan tombs are frequently found outside the inhabited district of Tarxien and Marsa. Two old Christian cemeteries, besides one in il-Gzira bearing a Roman inscription first published by Gualtieri¹ and another on the hillock tal-Gisuiti found in 1874, are evidence of the dense population of that part of the country in ancient times. These circumstances evidently prove the inaccuracy of Ferguson's statement that the Maltese great stones are situated inland and far away from centres of population and of the Maltese harbours. They are certainly non-Greek and non-Roman, so unrefined and ungraceful are they in execution. They show no columns, no precious marbles, no mosaic pavements, or stucco coatings embellished with frescoes, like the Greek and Roman architectural monuments in Malta and elsewhere do; and their exterior, in keeping with the interior, is not ornamented with peristyles or porticoes. They are of the same style of architecture representative of the oldest non-historic remains. With respect to the materials and the mode of their construction, the Maltese great stones have been classed with the rude megalithic antiquities of other countries; though, being worked with effective and sharply pointed metal tools, they are not strictly so.

The origin and era of the Irish, British, and other Continental great stones, the race to whose skill and power they can be ascribed, and the object for which they were designed are still subjects of great perplexity. An absolute silence of the classics, even so detailed and accurate as Cæsar and Tacitus who had the opportunity

¹ *Antique Tabulæ*, Tab. cccxi.

of seeing the Celtic great stones, the former in Great Britain and France and the latter in Germany, and an absolute want of local tradition deprive megalithic antiquities of all historical evidence. By one theory our great stones, like other rude monuments, were thought coeval with the cave-man, and so were swept into the pre-historic gulf. As two lithic ages, separated by thousands of years, have been presumed to be worked by either chipped or polished stone tools and other implements found in pre-historic caves, the Maltese great stones may belong to either of these two ages, extending over a period of possibly 50,000 years. No flint tools or arms, however, like those discovered in the Danish and other Continental finds have hitherto been met with in our natural caverns; the islands of Malta, consequently, have not as yet a claim upon the existence of man in pre-historic ages. Moreover, the blows of percussion on the walls of our great stones prove evidently that metal tools, sharp-pointed and very effective, have been used in dressing them. Rudeness, indeed, is impressed on all their parts; they show a failing attempt at linear or oval outlines, roughness in opposing surfaces of blocks, and in dimplings on the walls. In making perforations for rope-hinges to a door they attacked the jambs on the lateral sides of their corners until the borings met as in the stone ages. But our great stones offer a certain style of workmanship regular in internal distribution of details, and an attempt at ornamentation; consequently they are not the rude work of man in a savage condition.

Others have regarded the cromlechs and great stones of Great Britain and the Continent either as astronomical observatories and orreries, or law-courts, or places of assembly, or even battle-fields; and so the Maltese great stones may have been.

By some these monuments, including the Maltese great stones, were considered as temples consecrated to an ophite or other bloody worship, and the dolmens as altars on which human victims were sacrificed. But the charred bones found within our enclosures are the relics of quadrupeds, mostly oxen and sheep, not of human victims. Fergusson has very rightly observed: "The Maltese great stones are too much unlike anything else in Europe, in

Africa, and in the East. They have neither any resemblance to the Nurhogs, those of Sardinia, or the Talyots of the Balearic islands. They are so unique that no useful inference can be drawn with respect to their age from comparing them with other monuments in Greece or Europe or anywhere."

Cluverius, Busching, D'Anville, Malte-Brun, and other geographers; Commander Abela, Count Ciantar, Canon Agius, and other of our early historians, were certain that a Cyclopean race, the Pheacians, expelled from Sicily by their giant brothers the Lesthngones, were the aborigines of our islands and the builders of our great stones, which were considered by them as works of defence and called Cyclopean towers. The presence of this race of Anthouses and Orions in Malta was strengthened in the opinion of our historians by the occasional discoveries in several caverns of teeth and ribs and bones of long dimensions, which were deemed remains of our giant forefathers. Canon Agius¹ records the discovery of a giant skeleton in excavating the foundations of Fort Manoel, Malta, in the time of Grand Master Manoel De Villhena, about 1725. This fabulous existence of our giants was grounded on one or two passages in the sixth and seventh books of the Odyssey, referring that the Pheacians, driven away by the Cyclops of Sicily from Hiperia, which was presumed to be the ancient name of Malta, were led to Corfu by Nausithons, son of Neptune, and Periboea the daughter of Eurimedon king of the giants. The Greek poet or rhapsodes may have alluded to an emigration of a Pheacian tribe from Hiperia, a place now identified with an ancient town on the river Hiparis on the southern coast of Sicily, on the ruins of which Camarina was subsequently erected by the Greeks of Syracuse.

A tooth illustrated by Comm. Abela,² found at Gozo in 1658, was presented to Pope Alexander VII by Grand Master De Redin. It has been identified as part of a molar of an extinct species of elephant. Dolomieu³ mentions that other teeth have been found in our islands, having a crown surface measuring 8 inches, probably of an elephant;

¹ *Gozo Illustrated*, cap. iv.

² *Malta Illustrata*, tavola xii.

³ *Appendix, Par un Voyageur François*, 1791.

and other exuviae of hippopotami. Since the excavation of the Candia gap in 1857, a great many molars, teeth, long bones, and other remains of proboscideans and other large quadrupeds, birds, reptiles, etc., have been exhumed from the ix-Xantin fissure in 1870 by myself; in the iz-Zebbug cave by Captain Spratt, R.N., in 1859; in the Maghalaq cave and vault in the Bin-Ghisa gap, in St. Leonardo fissure, in the Melleha valley, and in the Mnaidra gap, by Dr. A. L. Adams up to 1863; and very recently in Ghar-Dalam cavern by Mr. Cooke. These explorations, among other relics, yielded the remains of several individuals of three extinct species of elephant called *Elephas mnaidrae*, of two dwarf species called *Elephas melitensis* and *Elephas falco neri*, and of the hippopotamus. These relics undoubtedly were the teeth and the ribs of giant dimensions seen by Comm. Abela and Count Ciantar, which by the learned of their times were likewise believed to appertain to a giant race of men, a belief in their case strongly confirmed by our wonderful megalithic remains.

In Fergusson's opinion the Irish cairns, the British and German barrows, the French dolmens and cromlechs, and the finds in Denmark were, like the African tumuli, sepulchres of Gaelic and other Celtic peoples, and some of them simple cenotaphs. He estimates that human deposits have been exhumed from those monuments by the pickaxe and spade to the extent of three-fourths. Thus he contended that the Maltese great stones mark the burial-places of a people who burned their dead and were very careful of the preservation of their ashes. All the great stones, agreeably to this theory, whether in the Celtic or Maltese form, as well as the pelagic tombs in Greece and Asia Minor, and the African tumuli, belong to one style, like the Ghotic, the Grecian, and the Egyptian, with a beginning, a middle, and an end without a great hiatus; and all belong to one unbroken period, whether prehistoric or historic. They seem to be the work of active and energetic races prompted by the same feelings as ourselves and not of an unprogressive and slothful Turanian stock.

Though some of the Celtic monuments belong even to the tenth century A.D., the more ancient ones can hardly

go much beyond the Christian era. The age, however, assigned by Fergusson to some of the Maltese great stones is that of the Trojan war, about 1200 B.C. The exterior appearance of Hagar-Qim with its two lateral domes restored would resemble, in his opinion, that of Kubber Roumeia, near Algiers, which has been ascertained to be the tomb of the Mauritanian kings down to Juba II, about the beginning of the Christian era. Fergusson grounded his theory on the numerous recesses in the internal arrangement of the more complete chambers, which he compared to cupboards with shelves for the careful preservation of human ashes. He, moreover, considered that the situation of the Maltese monuments, far away from any centres of population and from the harbours of the two islands, made it hardly worth while to enter the argument to prove that they were burial-places, and not temples in an appropriate sense. Had the learned writer obtained a full and correct acquaintance with our great stones by a personal visit, he would have observed how much the internal arrangement of chambers—recesses and other details—differs from the honeycombed appearance of cupboards and niches in a burial-place. He, moreover, had his information about the situations of our great stones from Colonel Collinson, R.E., who was in Malta on service. That officer reckoned the eight miles distance of Hagar-Qim, of Mnaidra, and of Melkart ruins, from Valletta the present capital of Malta; but he entirely failed to observe that this great centre of population was not in existence during the age of our great stones. These monuments, in fact, nearly all stand in immediate proximity to our many land-locked bays, coves and harbours along the south-east, the southern, and the north-east of Malta, which, with their mid-Mediterranean position, offered safe shelter to early navigators.

The Melkart ruins stand on the knoll overlooking the Marsa-scirocco, or vast south-east harbour, within ten minutes from St. George's Bay. That whole coast as far as Xgharet-Meduviet, Marnisi, and Deyr-Limara is full of ruins of the same description, indicating that the place was once a very populous centre. The Mnaidra and Hagar-Qim great stones are within a few minutes from the

bay and cove of Wied-iz-Zurrieq, in full view of the little rock of Filfla. The heath il-Guredi intervening between them, and sloping towards the sea, has been broken up and dressed into terraced fields, obliterating all traces of a road between the two. Still on the dykes several isolated monoliths and detached blocks of stone, presenting well-marked indications of mason-work, are visible. In the inland surrounding district and in the now derelict villages of Hal-Cbir, Hal-Xiluq, Hal-Niclusi, etc., are seen the megalithic ruins of Bir-Gabbar, Biar-Gabrun, Biar-Blat, tal-Ghenieq, il-Hereb, and tal-Barrani, mixed up with other great stones scattered in the intervening lands. From the fact of these two important monuments being in such proximity, and from the numerous ruins surrounding them, it may be safely inferred that the place formed part of an important seaport town. The place was undoubtedly a large focus of habitation, and in my Report on the Phœnician Antiquities of Malta, fol. 24, I ventured to suggest that this was most probably the site of the original Phœnician capital of Malta. It seems that its extent was limited on the north by Hal-Xiluq, on the east by Taltami, on the south by the cove of Wied-iz-Zurrieq, and on the west by Hal-ta-Buni. It drew its supply of water from Ghayn-il-Cbira, Ghayn-il-Qadi, Ghayn-Ghliem-Alla, and Ghayn-Muxa on the west, along which stand the megalithic ruins of il-Gorgenti and San Laurenz. The primitive capital may, however, have been Cabiria, which left its name recorded by Hal-Cbir, on the skirts of which village are several megalithic structures deemed works of defence by Commander Abela. The native denomination, *Cbir*, meaning great, and traditionally preserved to the place, points out that it was a notable town and not a small assemblage of a very few habitations, as it was in the time of Mons. Duzsina and Commander Abela.

We have seen the Cordin great stones in close proximity to the inner land-locked coves in the great harbour, and in the midst of a country thickly inhabited and frequented by native and foreign populations, and so are other great stones at the Wardia, at St. Paul's, and the Saline Bay, and at Melleha in the island of Malta. The Ġgantia at Gozo stands on Xaghra Hill the original Phœnician capital of

the sister island, on the side overlooking the Ramla fertile valley and bay. The Qaghan and Mrezbiet great stones are near the 'Mgar cove and the sea, in full view of Kemmuna Island. The only exception seems to be that of the Hartrum lands and it-Torri-tal-Gawar, between Gudia, Hal-Safi and Zurrieq.

The information supplied to Fergusson was thus utterly inadequate and incorrect.

Those who believed in the sepulchral character of the Maltese great stones have regarded them as princely tumuli for the resting-place of the ancient worthies of the island, not inferior to the tomb of Atreus at Mycenæ, or of that of Atalyattes at Tantalcis. The number of these worthies in Malta must have been indeed very considerable, as the great stones found in the two islands are numerous. As an evidence of fact against this theory, when the former excavations were undertaken in 1827, 1839, and 1840, some of these monuments presented a variety of stone furniture and arrangement of details undisturbed, and no traces of having been once rifled. Stone and clay figures and other stones, ornamented and sculptured, were discovered, but no cinerary urns like those found commonly in our rock-tombs. Hence no local evidence, by the circumstances accompanying their early excavation, is afforded to this conjecture, based only on what has been the case in those Celtic monuments with which the Maltese great stones have been grouped.

Some of our great stones have been exposed since their exploration to enormous devastation. Their materials have been used in levelling the ground for the upper soil of humus, and in dressing the terraces of newly cultivated lands. Still, some portions of them have been preserved with their details, and by clearing the foundations the general trend of the walls and the original extent of their *ambitus* have been traced. It is by accumulating, sifting, and comparing all their internal though scanty evidence that light may be reflected upon their history. The contents, moreover, found in some of them, especially a highly interesting inscription allusive to extensive repairs, and the traditional denomination of one of our great stones, will afford a conclusive evidence to our inference that they were destined for the public worship of the deities of

nature consecrated by the aboriginal Phœnician settlers in our islands.

All our megalithic monuments, both exteriorly and interiorly, are made of one typical form, the egg, symbolizing the universe, the upper portion the heaven, the lower the earth. Uniformity of plan and design, so simple and identical in shape and dimensions of chambers and recesses, and in details, prove that the Maltese great stones served for similar purposes and were built by the same race.

A Phœnician inscription found in the Ġgantia in 1855,¹ as read by W. Wright, states that the people of Gozo island had repaired the shrines of the temples of Sadam-Baal, of Ashtoreth, and of three other sanctuaries, at the expense of the most worthy Aris the son of Yuel, the Shafat son of Zibqm, the son of Abd-Eshmun; that the sacrifice was made by Ba'al-Shillekh the son of Abd-Eshmun, and the work carried on by Ballo the son of Kln, the son of Ya'azor, superintendent of the carpenters. In the reading of Renan, the temples restored by the people of Gozo were four, and there is only a little discrepancy in deciphering some of the names of the officers mentioned. The age assigned by Renan to this inscription is between the years 350 and 150 B.C., after the expulsion of the Carthaginians from Malta by the Romans.

The arrangement of the shrine of Ashtoreth, in the left apse of the anterior area of the right hand pair of chambers of the Ġgantia with the steps leading to the ædícula in which was placed the conical statue of the goddess, was seen by La Marmora in 1834, and minutely described and compared to a similar shrine at Paphos.

Tacitus and Maximus of Tyre inform us that the Venus of Paphos was a white pyramid. Sir J. Lubbock, by the conical obelisk symbolising the goddess, was led to believe that the Phœnicians had erected this shrine in their bronze age.² Although the monoliths siding this shrine were pulled down, still in 1881, when my Report on the Ġgantia was published, all the accessories of that shrine and the conical idol were in the same apse, and there remained till 1885. The late Marquis Desain, the pro-

¹ Dr. Adams, *Notes of a Naturalist in the Nile Valley and Malta*, part iv.

² *Prehistoric Times*, p. 4

prietor of the place, thoroughly ignoring the nature of that monument, with perfidious stubbornness, in spite of the remonstrances of Government, at whose expense those remains were cleared up, ordered the removal of these interesting details in his search for Greek vases.

Two of the other shrines mentioned in the inscription above referred to were probably the circles to the north of the Ġgantia drawn by Houel in 1785, and by Admiral—then Captain—Smyth in 1827; and the enclosure in front of the same ruins to the south, seen by La Marmora, and believed to be a dolmen or cromlech.

In 1885 a fragment of another Phœnician inscription was found carved on one of the tall monoliths in the left-hand hemicycle of the posterior area of the left-hand pair of chambers, deciphered by Professor Sayce, of Queen's College, Oxford, who suggested as a doubtful interpretation of it, "graving-tool of" This evidence is a direct proof of the use of the Ġgantia great stones dedicated to the worship of Baal and Ashtoreth, and of their Phœnician builders.

There can be very little doubt that the ruins of Melkart belong to an old temple of the Tyrian Hercules. Two conical cippi, or pillars of saline marble, adorned with foliage of acanthus at the base, of elegant form and graceful execution, found in the Melkart ruins, bear a Phœnician inscription recording the offer to the king of the earth by Abd-Osir and his brother Osir-Shamar, sons of Osir-Shamar, son of Abd-Osir. To this Phœnician inscription is added a Greek translation, in which the Phœnician names of Osir and Osir-Shamar are rendered Dionysius and Serapion. The age assigned by Renan to this inscription is about 180 years B.C. Renan, who does not doubt that the shrines of Melkart in Malta belong to the old temple of the Tyrian Hercules, states that two like pillars in the temple of Melkart at Tyre are recorded by Herodotus (II 44) and by Sanchoniatho.

In the great stones of Haġar-Qim and Mnajdra is observable internally an identical distribution and arrangement of details like at Ġgantia—similar niches for statuettes, monopode tables for the reception of oblations, lateral apsidal recesses with mysterious oblique cylindrical holes, screened from public view, and indicating

the inviolability of oracular areas; and extensive outside courts for the gathering of worshippers.

Charred bones and teeth of sheep, oxen, pigs, and dogs have been repeatedly picked up by Dr. Adams and myself in many of the chambers of Haġar-Qim and Mnajdra, and there is no difficulty in recognizing such remains, found in abundance. Such finds, coupled with evident signs of fire, seem highly suggestive that these quadrupeds have been used for sacrificial ceremonies in sub-Jove temples. An altar with a pitted surface all over, and eight small pillars springing from the corners, and adorned with two serpents; a sacred slab, presenting two coupled serpents round an egg, figuring the generative power in the religious tenets of the Phœnicians, were also recovered from these remains. Seven acephalous and grossly fat statuettes, two of them seated and wrapped in a gown covered with dotted ornaments, the five others naked and squatted on oval bases, record the ridiculous figures mentioned by Herodotus and Tertullian of the seven Cabiri adored by the Phœnicians, two of whom, Axieros and Axiokersa, were females. This suggested very happily to the learned Dr. C. Vassallo, late librarian, that the Haġar-Qim seven chambers were consecrated to Phœnician worship of the seven Cabiri, or Powerful Gods, and the great stones of Mnajdra to that of Eshmun, the eighth and latest member of the Cabirian family, according to Sanchoniatho.

The great stones at Cordin show the same topography of oval-shaped apartment, with several recesses leading off, like in all our megalithic monuments.

One principal feature of Ġgantia, Melkart, and Haġar-Qim is to be surrounded by *temenos*, or smaller fanes, to shelter the national deities as in a Pantheon. So also are the great stones at Cordin.

There is no direct evidence from which to infer the particular deity worshipped in the temple of Cordin; we can only conjecture it.

A primitive Phœnician settlement in the islands of Malta, and the claim of these early colonists upon our great stones, are beyond question. The Phœnicians, like all Canaanites, hated cremation after death, and adopted proper interments of their deceased in tombs made for

the purpose, so that their great stones were simply temples for public worship in the open air. The principal national deities of the Phœnicians were Baal, the generative god, and Ashtoreth, the conceptive goddess, represented by an egg. All our Phœnician inscriptions bear direct evidence that that was the worship of our Phœnician ancestors in Malta.

Among the charges brought before the Roman Senate against Verres, Cicero mentions the sacrilegious plunder of the temple of Juno, which stood on a promontory in the great harbour of Malta. Valerius Max states that a Punic inscription in that Phœnician grand temple recorded that one of the generals of King Massinissa had taken away some ivory teeth, which were subsequently restored by the king himself. Juno is the Roman name for the Phœnician Ashtoreth and the Greek Hera. In the traditional lore of the Phœnician belief, the deities of generation and fecundity were principally worshipped. This native worship of the earliest settlers of the islands of Malta was not affected by the subsequent Greek colonists and the Romans. The Greeks, who had settled friendly with the native Phœnician folk, had, as elsewhere, Hellenized the Phœnician gods and worship. In Baal the Greeks saw their Zeus and the Romans their Jupiter, generator of gods and men. They recognised Hera or Juno in Ashtoreth, and the comprehensive form of goddesses into which the Greeks and the Romans divided the conceptive principle of nature.

As the Greeks possibly made use of Melkart temple, so they may have made use of the great stones of Cordin. Prosper Aquitanicus further informs us that Ashtoreth's temple in Africa occupied a considerable area surrounded with shrines like the Cordin great stones. These circumstances may uphold the conjecture that the great stones of Cordin formed the primitive national temple of Ashtoreth, raised by the Phœnicians on the most noteworthy and extensive area in proximity to the great harbour of Malta.

The Maltese great stones are certainly pre-Roman and pre-Greek. All considerations combine in appointing to the apparently oldest ones the very remote era of the

expulsion of the Canaanites of Phœnicia and their settlement in Malta, namely 1,500 years B.C.

The construction of some of them was certainly executed before the Phœnicians' skill enabled them to work artistically and with elegance. Others appear to belong to a more recent age, after the Phœnicians had commenced to be more refined in arts. The use of these sacred areas as places of worship lingered probably up to the second century of the Christian era, as evidence is not wanting to show that relics of heathenism existed in the two islands of Malta at that time. Ptolemy, A.D. 190, positively asserts that the worship of Juno and of Hercules in Malta was then highly renowned.¹ By Roman intolerance, by right of hereditary supremacy, and finally by mere existence, the only public worship in Malta up to the time of Constantius Chlorus was heathenism. The restoration of the temple and theatre of Apollo at Notabile took place under the Antonines. Up to the same time, the college of the Flamines Augustales was preserved at Gozo. In fact, great stones stood venerated in the northern shore of Africa and in some countries of Europe up to the eighth century. The Emperors Manlius Theodorus, and Flavius Eutropius, in the fifth General Council of Carthage, A.D. 399, ordered the total annihilation of the great stone worship. A Council at Arles in 452, another at Tours in 567, a third at Nantes in 658, and a decree of Charlemagne at Aix-la-Chapelle in 789, destroyed that worship in France. Two Councils at Toledo, in 681 and 692, forbade that worship in Spain; and a statute of the time of Canute the Great did the same in England.

During probably the third century, the Maltese great stones fell into utter decay. The upper layers, to the height of 21 or 22 feet, were gradually removed, and only the lower courses retained the shape of the original structures. The fallen material and drifting soil accumulated upon them to the height of 7 or 8 feet, affording food for vegetation, leaving visible only the tops of the taller stones. So they were entombed at the time of Comm. Abela in 1642 and so remained until 1839, when their partial excavation was commenced.

¹ *Labbas*, Tom. iv.

ON SOME FLINT IMPLEMENTS FROM EGYPT AND DENMARK.

By F. C. J. SPURRELL.

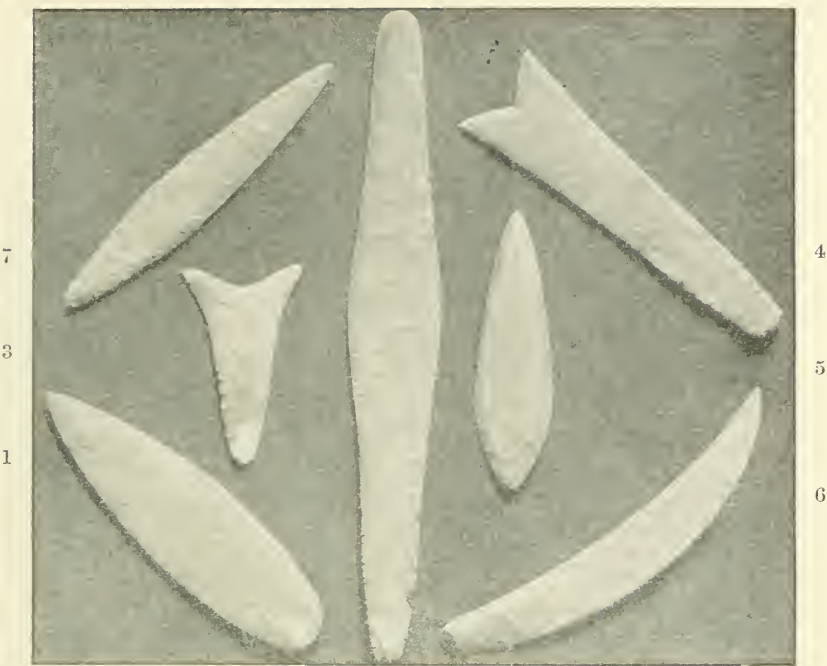
A large number of chipped flints are found over the surface in certain situations more abundantly than in others, though sporadically they occur in many parts of the Nile Valley. The specimens exhibited on this occasion were excavated by Prof. Petrie at Nagada in 1895. They are all made of local materials, as is shown by the crust still left on the stones. The majority are oval in shape, some symmetrical, others bean or kidney shaped and round, the length varying from a little over one to nearly eight inches. Few are pointed or show resemblance to the palæolithic hache.

The chipping is very uniform in kind. Some of the longer ovals are chipped at one end from side to side, making a sharp edge. Signs of use are seen on a very limited number, and when they occur appear to be disconnected with the intention of the maker. A variety diverges in some cases to a well-marked, broad end, making a triangle, with one corner for attachment to a handle; they are thin and flat. Along with these are hoe-blades, coarse chisels, rough knives, and a variety of forms closely resembling many of the ruder neoliths of this country. Thumb-flints, or slicking-knives, also occur, and hollow scrapers, with sickle teeth and long flakes notched along the sides, which might be saws or drags.

With them are also found polished basalt and hornstone celts, pecked into shape and formed into chisel-shaped objects, the edges very blunt, and the whole outline very stumpy. They are generally small. Some are of the form of the eared hatchet common at all times in Egypt, which was set sideways in a handle, the ears serving to bind it into a groove.

Arrow-heads were found—one with a well-made tang and triangular head, others shouldered or heart-shaped. The barbed forms are the commonest. The barbs (without the tang) bend inwards—they were probably very

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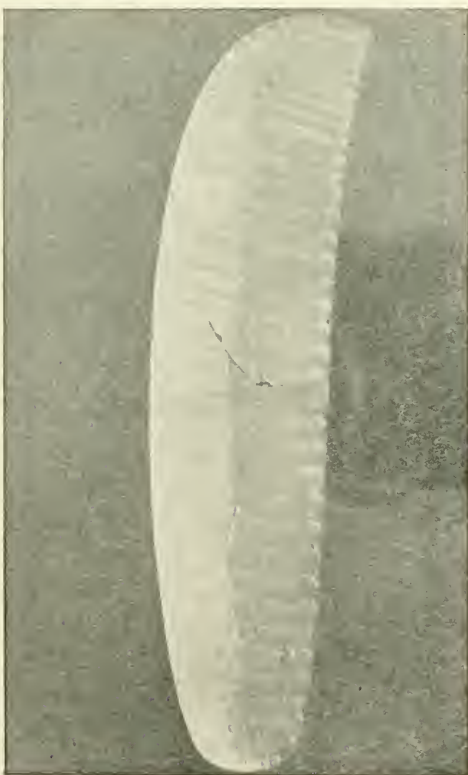
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FLINT IMPLEMENTS FROM EGYPT.



loosely fastened on. A very long barbed one and a rough variety was found pointed at both ends.

Although those already mentioned appear to belong to a different style and mode of workmanship, there is nothing to show that they do not belong to the finer work about to be described except that the two are not found together. The first were found in layers of soil, mixed with ashes and signs of living waste. The finer ones were exclusively found in graves in cemeteries apart from, but near by, the settlements. Broken specimens of the finer sorts did not occur away from the graves, nor did the characteristic ovals occur in the graves; but inasmuch as the grave specimens were all new and specially prepared for burial, and were all made from stones quarried and worked far away, the distinct facies of the two varieties of work may be reconciled by supposing one to represent use, the other honour among the same people. It is not implied that these implements were constructed for ceremonial purposes; only that they were brand new, fit for work—such as they were commonly put to—and ready for the unknown journey of the newly dead.

Of the finer, or grave, implements there are many varieties. One sort of these may be shortly styled flakes, by which is meant that (although they are glorified, splendid examples of flaking, from their simplest to their most elaborate forms) the character of a crude flake as struck from the block is preserved, and they thus differ from those implements which have been so completely worked over as to retain little or nothing by which their first outline can be determined.

All fine flakes, on separation from the parent block, have a point and a butt and three or four sides. The three-angled form is the commonest, and when the middle rib on one side is placed as close to one edge as possible, a razor-shaped blade is formed. This, when the back of the blade is neatly chipped and tooled, and when the inevitable wind is corrected as much as possible, and an edge or fine nicking is given to the cutting side, is a perfect knife. It must be noticed, however, that the presence of curves and wind was detrimental, and in the case of these flakes both are occasionally wholly absent.

Some of these flakes are ground, on one or both sides,

and then finely fluted. The back is finely tooled in a complicated manner resembling the seam when two edges of leather are brought together, making a waved line.

The impulse which started the several fissures took its origin from a small point, at first going deep into the stone but subsequently, by a sudden change, running for a long distance just beneath the surface at a uniform level. The horizontal direction also changed suddenly. The tendency for the flake to ripple along at an even distance beneath the surface, though differing in different specimens of flint, is very regular, and was the result of art, and no peculiarity of the stone.

The finer and most regular kind of flaking, or fluting as it may be called, requires a smooth surface on which to employ it, and was first practised on the smooth surface of large flakes. Knives were therefore first carefully chipped to the desired outline, then they were ground, probably on some hard stone such as quartzite—or it may have been with sand—as thin as possible, with regard to the future force to be employed; then they were fluted on one side, the other being left smooth, probably because they would not bear further reduction in thickness. Sometimes fluting was tried on fine chipping without grinding previously, but never very successfully. And sometimes fluting was carried across a considerably curved surface with partial success. In most cases it is evident that the object the workman had in view was to flake quite across the blade, and if unsuccessful in that to make the junction of two flutings so accurate as to give the impression of but one. Mitreing was not desired. The evidence for grinding is found at the junction-line of fluting, where small patches are sometimes left occasionally. There are none in the best work.

It is difficult to understand that the delicate blades of knives and the fine bangles were chipped by blows delivered directly. A more precise blow might have been delivered indirectly by means of an intervening substance, such as a point of stone or metal, but even this would appear too clumsy. The smallness of the point of origin, and the apparent slowness and deliberation of the action, indicates rather that fluting and ring-making was the result of pressure.

The pressure might have been direct or by means of a lever, and there are signs of some torsion having been used, as though a long bone or metal bar with a slot in it were used.

The nearest modern work to which this may be compared is that employed to shape the edges of the thick glass plates called deck-lights, some very fine specimens of which were exhibited at the last Naval Exhibition. The general resemblance was curious.

The remaining forms of simple flakes call for no special remark.

The finest knives are thin and narrow, and as much as fifteen inches long. They have a central bulge, from which the edges recede to either extremity, which in these symmetrical forms is rounded.

One end is less carefully finished than the other, and was covered by the handle. The remainder of the blade is well worked, but is never ground or fluted. Except the tang, the edges are finely notched, the best examples being $\cdot 03$ inch apart and about $\cdot 01$ inch deep. It is very delicate, regular work, made after the edge had been brought to a true line.

The notching of these knives round the point shows that they were not intended for thrusting—indeed, the finish of this variety is all for show.

Some knives or spearheads are large and leaf-shaped. These are often ground and fluted. Another kind of knife is pointed and curved to form a thin crescent. Most of these are well flaked. One was found lightly ground and fluted. A kind of knife or spearhead formed for thrusting, having a sharp point, was sometimes ground and sometimes not, and rarely fluted. One of this shape was ground in facets, having a median line—a very metallic form. From the scimitar-formed knife, varieties show a gradual change at the tip, whose curve nearly approximates them to the next type.

The most admirable implements have a recurved tip. The finest flint was used for these, often clear and Chalcedonic, and on them the highest art was exercised. The form of these knives is commonly a straight blade, with the cutting edge recurved towards the handle, the blunt edge meeting it after turning to a right angle with the

blade. The knives are ground very thin on both sides, and then chipped with exactness, obliterating all signs of grinding, except when one side is left plainly ground.

Some implements are characterised as having the effective or business end much the wider. The smaller is often rounded and commonly rough, and was inserted in a handle or shaft. From that point the edges diverge until near the free end, when the widening increases, sometimes rapidly. The edges then curve back, either in segments of circles to the middle point, or from rounded corners to a slightly depressed centre; in all cases this termination deserves the name of fish-tailed. The business end is sometimes nearly a straight line. The largest of these spearheads have the greatest care lavished on them. They are sometimes ground and finely chipped, but not fluted, because apparently the shape made this too difficult. But, as if to compensate for it, some are smoothly polished intentionally, the polish going over the ridges into the hollows (not as in grinding, which only rasps the prominences). The section of some of these is the thinnest of the whole series. Except at the butt, the edges are worked to a cutting-line all round. In some it is merely a sharp line, in others it is carefully notched, coarsely or finely—the finest being the most regular of any known, very regular in depth and spacing—the notches are frequently $\cdot 03$ inch apart and $\cdot 01$ inch deep.

Some of these, from their size, were probably arrow-heads—others, perhaps, javelin-heads; but it is to be noted against the latter supposition that the largest and broadest are the most reduced in thickness; they are almost of papery thinness, a quality unsuited to a javelin or spear, where weight is desirable. They may have been arrow-heads specialised.

There are some examples of these beautiful flints in public and private collections—but they are not numerous—obtained from Thebes and other places through dealers, the origin of which was a mystery until Professor Petrie worked the cemetery of Nagada. Of these earlier examples Mr. Greville Chester in particular gathered some together, among which was a fine example (now in the possession of General Pitt Rivers) of the broad-bladed type, having the end recurved. It was mounted on a carved ivory handle

of true or dynastic Egyptian work. None of the Nagada specimens had any of the handles remaining, but one double-pointed arrow-head has the line marked completely up to which the woodwork once reached—(it had a cord wrapped round it with some leather, the association of which is not understood)—but the wood was wholly decayed; several others showed signs of some resinous cement at the rougher end. The wood had probably in every case been destroyed by ants.

Among the objects from Nagada were rings of flint. These are very fine and flimsy to look at. They were manufactured from the ring-shaped flints naturally occurring in the limestone and gravel of the country chipped into shape and then ground finely by means of emery, a mineral largely used then for forming hard stone vases and beads. They were probably armlets. General Pitt Rivers showed some in London many years ago; these were broader and unpolished, and there is one in the British Museum.

Some of the details of the implements made by the race described somewhat closely resemble the later neolithic work of Northern Europe.

But it will not be safe to conclude that, because in Egypt there are found implements belonging to various palæolithic and neolithic types such as are recognised in Europe, and apparently in a similar order of deposition, they were of synchronous manufacture, although the date assigned by Northern antiquaries to the later Stone Age of Denmark is, by a curious coincidence, the same as that assigned to similar work in Egypt by Professor Petrie. 3,000 B.C.

II.—FLINT CHIPPING IN DENMARK.

It is a far cry from Egypt to Denmark, but it is well to take this opportunity to make a few remarks on a particular point in the manufacture of the fine stonework of the latter country.

Hitherto Denmark has held the pre-eminence in flint chipping. Worsaae¹ says that it is “quite unknown out

¹ *Danish Arts*, J. J. A. Worsaae, 1882, S.K. M. Handbooks.

of Northern Europe," and his further opinion is accepted by everybody, viz., "It is remarkable that these flint implements have apparently never been attempted to be polished, as only in extremely rare cases are there a few slight traces that the polishing of the surfaces had ever been attempted. In this respect they form a great contrast to the large flint axes, which are apparently superfluously polished. It is possible that the workman feared to expose the thin, delicately chipped blade to the danger of breaking in grinding." I have never held this view that the traces of polish which he speaks of as rare were put on after the knife was finished as to chipping.

It was many years ago that, in examining the fine collection of Sir John Lubbock at High Elms, I came to the conclusion that the relics of polish on some blades was not the finishing-touch, as it was evident that some of the flaking was later than it.

As these objects, showing suitable signs for demonstration, are not common, it will be convenient to refer to some in the British Museum, to which easy access is so kindly given by Sir A. W. Franks. The specimens I refer to have usually the finest chipping on them; they have almost always very flat surfaces, such as blades without handles or the flatter part of daggers. The coarser forms rarely needed the refinement which the others received in their treatment.

The finest Danish flat knife-blades reach to 15 inches in length. But it does not appear by any signs that the longer blades were originally cleverly struck flakes. All appear by distinct marks to have come from blocks whose exterior mass has laboriously been knocked off piecemeal, so that only one knife was the result. There is never any trace of wind on them, although occasionally they may not lie quite flat. Besides, the structure of the flint is rarely good enough to permit of the separation of first-rate flakes as in the Egyptian stone. The general shaping of the blades was begun boldly, then shorter and shorter strokes were given at the edges as the curve became defined. Fine fluting could only be attempted after the surface had been reduced to great smoothness by careful and niggling work. When



12. KNIFE FROM DENMARK.

the surface was to be fluted it was ground—from the appearance it is clear that sand was used—and the blade was made as flat and smooth as possible; then flaking was resumed, and very fine work was carried over both sides of the blade from both edges. These flutings met in a line somewhere on the side, forming an irregular raphe. In happy cases the flutings pass quite across the blade, a distance of $2\frac{1}{4}$ inches or more, but usually the flake from one side was met by another from the opposite side. The intention was clearly to make the two flutings meet so that they should have the appearance of one. When they do not do so the irregularity is quickly corrected, and no determined attempt to “mitre” or alternate between each other is found. After fluting no polish was intentionally given. The polish which is sometimes seen is that of accidental use, or the action of the earth in which the instrument lay. A want of flatness—which was the best the Scandinavian artists were able to accomplish—in the blades caused them to succeed in the very difficult operation of making the even parallel fluting to pass across the great curvature at an even depth without detriment to its regularity, in a manner which surpasses the Egyptian in this particular. But the direction is never straight across, it is markedly diagonal, and in this is behind the Egyptian work.

When the knife was completed the edges were smoothed and made up to an even cutting-line, and lastly, in some of the finest examples, the edges were carefully notched, not at haphazard, but at regular distances apart, with the flake completing the notch on the other side exactly opposite.

Wear, of course, obliterated this finish, which was never so delicate as the Egyptian, but enough remains on some specimens in our collections to show it.

The object the operator had in view was that of ornament, and his care was to obliterate all trace of the grinding stage. In the largest knives this is often successful. In the British Museum (Table-case G) is a knife, a sketch of which is given (No. 12, Pl. VI). It is 12 inches long, by $2\frac{1}{4}$ inches wide. The flutings are mapped out in order to show the raphe or junction-line where they meet on one side. Near the haft small portions

of the blade, with the ground part visible, are shown black, and one small patch near the tip. The latter is unusual, the imperfections being mostly seen at the other end. On the other side of the blade, so successful was the artist that his flutings pass quite across and obliterate all faults. (Fig. 12.)

A large knife lying next to it is 14 inches long, and shows no tell-tale patches in its perfect sides. Both these knives show notching, the larger most.

For the sake of reference, as there are no plates in which this particular is shown, there are in the British Museum some blades in which patches of the ground surface may be found, viz., a dagger—"Denmark 279," "Denmark 303." "Denmark 322;" 112 Knife. In table G, "Denmark 225c," and "Denmark 286." Besides the parallel fluting, there are the very fine zig-zag or puckered lines on some knives, chiefly the handles of daggers, in which situation they closely recall the stitched edges when two pieces of leather are drawn together, and of which they appear to be an imitation. These lines are so well known as to require no illustration. They appear to differ in no particular from those found in Egyptian work except the situation in which they are found and their greater regularity.

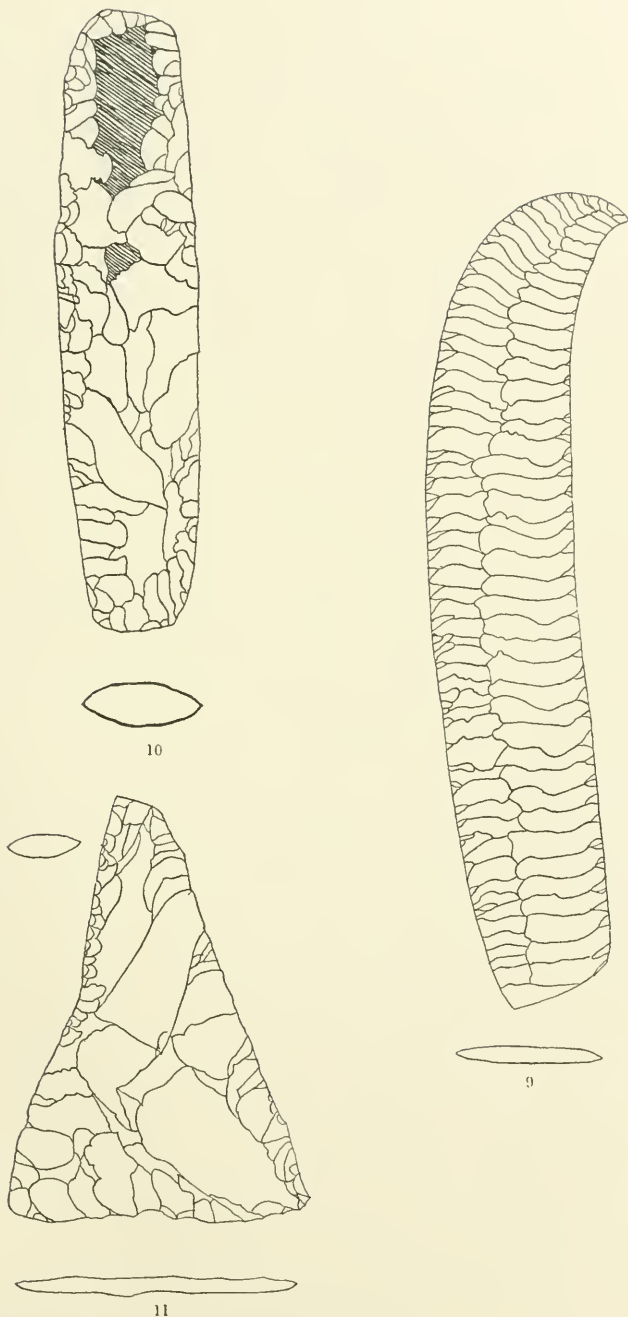
The resemblance in details of chipping between Egypt and Denmark is curious, but, as far as is known at present, is confined to that, the shapes of the implements being very different.¹

It seems very unlikely that a method of working should have travelled from the East across the plains of Europe in one direction, and into the valley of the Nile in another, without the similar shapes of the implements having travelled along with it. Besides, there are no specimens from lands surrounding Denmark which show the route

¹ Various arrow-heads with flat points are figured in books on the English and Continental Stone Age. Most of these are so simple, small, and inconspicuous as to have escaped notice. Some of those more elaborated have doubtless been included in the irregular forms commonly jumbled together as "serapers" and "thumb flints," their use wholly unsuspected. Some of more distinctive shape are figured in A. P. Madsen's

Antiquités préhistoriques de Danemark, on pl. 22, Nos. 6, 9, 10. There is, however, in the British Museum an implement closely resembling the Egyptian broad arrow-heads, whose business edge, however, is little curved. It is labelled "Cumberland," and evidently lay in Peat. The section given in the sketch (No. 11, Pl. V) is taken $\frac{3}{4}$ inch from the edge. Its total length is 4.4 inches; breadth 3.1 inches. Query—was this Danish?

PLATE VI.



9. IMPLEMENT FROM EGYPT.
10. PART OF KNIFE FROM DENMARK.
11. ARROW POINT FROM CUMBERLAND.

taken, although diligent collection has been for many years in practice.

On the whole there appears to be good evidence to show that the mere endeavour to excel in laborious dexterity of manipulation produced similar results in a material of limited capacity for shaping in lands disconnected by thousands of miles.

PLATE IV.

1. A fine implement in rose-tinted, opaque flint, finely indented all round, 8 teeth to 1 cm.
2. This implement is $14\frac{1}{2}$ inches long, by $2\frac{1}{10}$ inches at the widest part, finely indented 10 to 1 cm. all round, except near the handle.
3. Fish-tail arrow-head, indented 12 to 1 cm.
4. Ground then re-chipped. It is wrought to a fine cutting-edge, but not indented, $8\frac{1}{2}$ inches long.
5. Leaf-shaped lance, head ground, with a middle ridge on each side, edges indented except the lower quarter.
6. Sabre-shaped, 9 inches long, convex part indented, concave edge slightly bevelled and smooth.
7. Dagger-blade, two-thirds toothed, the rest evidently inserted in a handle once.
8. This knife is a good example of the parallel fluting. It was obtained at Abydos. It is plain ground on one side.

PLATE V.

9. This drawing represents the most perfect implement of the whole series found. It was ground and then fluted on both sides. The ground surface is obliterated except near the haft-end. The convex edge was toothed, the back is bevelled smooth, the depth of the flutings for $\frac{3}{4}$ inch are $\frac{1}{200}$ to $\frac{1}{300}$ of an inch. The material is a translucent, Chalcedonic yellow flint. There is evidence of much gentle usage on this, for it is much smoothed and the toothing nearly obliterated. The flaking of the original apparently meets in a middle line on each side; a magnifying glass was needed to map out the exact outline of the chips, so thin were they at the ends.
Its length is 8.6 inch, breadth 1.5 inch.
10. Part of knife from Denmark in British Museum.
11. Arrow-point from Cumberland (England) in British Museum.

PLATE VI.

12. Knife from Denmark in British Museum.

ROMAN ANTIQUITIES IN CARINTHIA.

By BUNNELL LEWIS, M.A., F.S.A.

The antiquities of Carinthia have been greatly neglected; as far as I am aware, no English or French author has given a detailed description of them. At first this seems strange, the province being within one day's journey from Vienna, and separated only by the Carnic or Julian Alps from Venetia. But the causes of neglect are not far to seek. Carinthia is remote from London and Paris.¹ Tirol, easily accessible, presents greater attractions to the mineralogist and geologist; while the traveller, seeking to gratify his love for the picturesque, finds more to astonish him in the lofty peaks and serrated ridges of the Dolomite Mountains than in the tranquil scenery, grand and pleasing though it is, that surrounds the Valley of the Drave.² Besides, there are here no Roman buildings still standing above ground—no temples, amphitheatres and aqueducts as we see them in Southern France.³ Nor is the district intimately connected, as Britain,

¹ Moreover, railway communication with Klagenfurt, the capital of the province, was opened much later than in many parts of Europe.

² Murray's *Handbook for South Germany*, Edit. 1890, Part II, p. 460, "sharp peaks and tooth-like ridges, rising many thousand feet into the air, . . . present the most picturesque outline." *The Dolomite Mountains*, by Gilbert and Churchill, 8vo, 1864; see especially Chap. XII: Tour through Carinthia-Zollfeld, Klagenfurt, &c. These writers are not antiquarian specialists, but they give some information which the archaeologist may find useful, v. Chap. XII, Gail Thal, p. 173, *seqq.*, Auf der Plecken on the Italian frontier—Roman road from Lienz (improperly identified with Leontium) to Aquileia—an important route of commerce, which was the portal into Venetia. Compare the *Antonine Itinerary*, pp. 276, 277, Wesseling's pagination, and *Corpus Inscriptionum Latinarum*, Vol. III,

Part II, p. 692 *sq.*; XXXI, *Vie Norici*. 1. Aquileia Virunum per Saifnitz.

³ Of the temples the Maison Carrée at Nîmes is the best known, and on account of its size, beauty and preservation, deservedly so. I mention it now, because a recent discovery has been made here. "It is constructed with the optical refinement of the curved horizontal lines hitherto considered peculiar to the Parthenon and other Greek temples of the fifth and sixth centuries B.C.": *American Journal of Philology*, 1895, January-March, p. 1. For this reference I am indebted to Mr. Weale, Principal Librarian of the South Kensington Museum. This peculiarity was unknown to the builders of the Madeleine at Paris, hence the effect of straight lines in the pediment is disagreeably heavy. Similarly, as I have been informed, the architects of the Pantheon were not acquainted with Sir Christopher Wren's train of mathematical reasoning, and consequently failed in their attempts to imitate him.

Gaul and Spain are, with the course of important events in Roman history, and the names of great generals and statesmen. Some, too, may have been hindered by Goldsmith's experience recorded in a well-known line, and afraid that boors would shut the door against them.¹ I need hardly say that such apprehensions are now groundless; the archæologist will feel much more safe and comfortable in the Austro-Hungarian Empire than if he pursues his inquiries, as I have done, in Spain, Sicily or Turkey.

My object now is to fill up, at least to some extent, a gap in antiquarian studies by calling attention to monuments comparatively unknown; and I shall begin with a work of art which is far superior to all that have been found in the Eastern Alps hitherto.

In 1502 a bronze statue was discovered in the Magdalenenberg,² near Zollfeld, by a peasant as he was ploughing. It was removed to Salzburg, where it remained for a long time in the possession of the Archbishops; lastly, in 1806 it came to Vienna, and, as a *chef d'œuvre*, now adorns the great Museum of that capital, occupying the post of honour in the thirteenth hall of the Antikensammlung.³

¹ *Traveller*, lines 3 and 4.

² This hill is also called Helenenberg; and the latter name is used in the title of the most elaborate account of the figure now under consideration, viz., *Die Erzstatue vom Helenenberge Festschrift zur Begrüßung der XII Versammlung Deutscher Philologen und Schulmänner zu Wien . . .* von Robert von Schneider, Wien, 1893, folio with photographs. The locality is defined in Map No. I appended to Kärnten's *Römische Alterthümer*, by Jabornegg-Altenfels; Situations-Plan des Zollfeldes mit Andeutung der Ausdehnung von Virunum nach den Gebäude-Spuren nebst Bezeichnung der in der Umgebung gefundenen römischen Ruinen und Denkmale; comp. No. II Situations-Plan vom Helena-oder Magdalenaberge mit Andeutung des Umfanges der römischen Ruinen.

Information as to the best mode of making the excursion to Zollfeld—the site of Virunum, distant a few miles from Klagenfurt—will be found in the following work, which is a part of Hartleben's Series of Guide-books: *Illustrirter Führer durch Kärnten mit besonderer Berücksichtigung der Städte*

Klagenfurt und Villach sowie der Kärntnerischen Seen und ihrer Umgebungen, von Josef Rabl. Mit 30 Illustrationen und einer Karte. See pp. 31, 33, 35. On his way the visitor may enjoy the fine prospect of the most extensive plain in Carinthia and of the Karawanken mountains beyond it.

³ *Uebersicht der kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauses*, p. 90, "Sie selbst ist älter als die Inschrift und wahrscheinlich die Statue eines Siegers in den griechischen Kampfspielen und ein Originalwerk aus den V. Jahrhunderte v. Chr. Erworben vom Bischof von Gurk Matthäus Lang von Wellenburg, ward sie nach dessen Wahl zum Erzbischof von Salzburg dahin gebracht, von wo sie 1806 nach Wien kam." The date here assigned to the statue seems doubtful: Furtwangler considers it to be the work of Polykleitos; but on account of its slender proportions I should be inclined to propose a later date, and I was glad to find that Dr. Murray of the British Museum agreed with me, and thought we had here evidence of modifications introduced by Lysippos.

Ancient statues, like ancient buildings, have often borne many names; the one now under consideration has been called Hermes Logios, Antinous, Mercury, Germanicus and an Adorante. We need not stay to examine all these appellations, but we may remark that the first is supported by the authority of the eminent scholar K. O. Müller in his *Archäologie der Kunst*.¹ He regards the uplifted right arm as an indication that the god of eloquence is here represented. This would be in accordance with expressions in Cicero's rhetorical treatises: *De Oratore*, III, lix, 220, speaking of gesticulation, he says that the arm extended to a great length is, as it were, a dart of speech²; again, in his *Orator*, xviii, 59, he develops the same idea more fully by the words *brachii projectione in contentionibus. contractione in remissis*—the arm outstretched in more vehement passages and contracted in those that are more tranquil.

The Hermes of the Villa Ludovisi at Rome illustrates Cicero's words; there the right arm is a restoration, but the adjoining parts show that in the original it must have been extended as we now see it. Emil Braun has well interpreted the motive of this figure. The god stands absorbed in reflection, but at the same time preparing to give expression to the thoughts that fill and dominate him. (*Vorschule der Kunstmythologie*, S. 61 fl., Taf., 97; *Ruin. und Mus. Roms*, S. 579 fl. English Translation, p. 349.) With this statue one now in the Louvre should be compared; it is usually called Germanicus, but, as K. O. Müller observes, it is a Roman or Greek of later times, who is pointed out by his costume of Hermes and his gestures to be an orator. (*Handbuch der Archäologie*, § 160, Remark 4. English Translation, p. 135.)³

Investigations of this kind encounter great difficulties, as it oftens happens that the authority quoted on closer

¹ This work is sometimes quoted as the *Handbook of Archaeology*. The English translation has a different title—*Ancient Art and its Remains*.

² Cicero describes the action of the hand and foot also, "manus autem minus arguta, digitis subsequens verba non exprimens . . . suppletio pedis in contentionibus aut incipiendis, aut finiendis."

³ Logios, as an epithet of Hermes, corresponds well with the narrative of the reception of Barnabas and Paul at Lystra (Acts of the Apostles, xiv, 12), where the inhabitants called the former Jupiter and the latter Mercury, because he took the lead in speaking, ἐπειδὴ αὐτὸς ἦν ὁ ἡγοούμενος τοῦ λόγου.



ADORANTE
FOUND AT MAGDALENENBERG.

inquiry turns out to be a recent addition, and that, too, in some cases made incorrectly, *e.g.*, a figure is engraved in Gori's *Museum Florentinum* which has been frequently referred to as Hermes, with a roll in his hand (Vol. I, Pl. LXIX, No. 4); but Zannoni, *R. Gall. di Firenze*, Ser. V, p. 116, asserts that the roll, left arm, head, and both feet are modern. Comp. Müller-Wieseler, *Denkmäler der alten Kunst*, Part II, p. 177, 319a. Similar mistakes appear in our English compilations, such as Rich's *Companion to the Latin Dictionary*.

The last of the above-mentioned interpretations of the bronze from Virunum is now more generally received, and it is supposed to be a youth who raises his hand as a suppliant, seeking to obtain from the gods victory in a pugilistic combat.¹ On the right thigh the following words are inscribed (*Corp. Inscr. Lat.*, Vol. III, Part 2, No. 4815):—

A · PUBLICIUS · D · L · ANTIOC
TI · BARBIVS · Q · PL · TIBER.

We have here the names of two freedmen, Aulus Publicius Antiochus and Tiberius Barbius Tiberianus. They probably dedicated the statue in a sanctuary on the Magdalenenberg, where it was found.

Inscriptions on statues were not uncommon in Etruria. Mr. Dennis, in his book on the Cities and Cemeteries of that country, mentions several. Sometimes they were placed on the head, shoulder or thigh; sometimes on the border of the pallium, on the sleeve, or on the fringe of a cuirass. If we regard the bronze now under consideration as representing Hermes Logios, one of the Etruscan examples is peculiarly apposite, *viz.*, the *Arringatore* or Orator, a Senator or Lucumo, . . . with one arm raised in the attitude of haranguing—a figure in the Museum at Florence. (Dennis, *op. citat.*, Vol. II. p. 103.)²

¹ Jabornegg-Altenfels, *op. citat.*, No. CLXXXVI, p. 78 *sq.*, cites the opinions of Sikler and Eichhorn concerning this statue. Sikler thought that it was a Hermes Logios (Redegott), the work of a Greek artist in the Seleucidan period, which was set up somewhere in Syria, and afterwards acquired by the

Romans; Briefe aus Gotha vom 18 October, 1811.

² *Ibid.*, pp. 114, inscription on robe of female statue; 202, on right sleeve; 426, on fore leg of bronze Chimæra in Florentine Gallery.—TINSVIL in Etruscan characters—similarly on shoulders of griffon in the Leyden Museum; 515,

According to Apianus, who with a colleague published a work entitled *Inscriptiones Sacrosanctæ Vetustatis* at Ingolstadt, 1534, folio, the statue, when discovered, had a cap (*pileus*) of bronze gilt; but some deny this statement, and say there was a shield¹ (*clupeus*) near the right foot. Mommsen adopts the latter opinion. This object bore the following characters engraved upon it:—

M · GALLICINVS · VINDILI · f · L · BARB · L · L ·
PHILOTAERVS · PR · CRAXSANTVS · BARBI · P · S ·

“Barbius” does not occur in the English edition of *Forcellini*, Text or Appendix, nor in Smith’s *Dictionary of Greek and Roman Biography and Mythology*, but the feminine gender will be found in *Jabornegg-Altenfels*, p. 43, No. LXIX:—

BARBIAE · P · F
VERAE · VXORI ·
P · TITIVS · P · L · ADRIS
SIBI · ET · SVIS · VF ·
E · TITIO · P · F · CLEMENTI
AN · XII

Barbiæ piæ filiæ Veræ, uxori, Publius Titius Publii libertus Adriaticus (?), sibi et suis vivus fecit, et Titio pio filio Clementi annorum xii.

Tacitus, *Histories*, I, 25, in his account of Otho’s conspiracy against Galba, mentions Barbius Proculus, one of the life-guards (*speculatores*) who distributed to his comrades the watchword written on a tablet (*tesserarius*). De Vit, *Onomasticon* appended to his edition of *Forcellini*, has an article “Barbia,” consisting of three sections. *Gens Romana ex Lapidibus scriptis præsertim nota, corrupte apud Suidam pro Barbatia usurpata*. He gives several examples with references; amongst them *in nummo Græco Βαρβία* OPBIANη. For the gens “Barbatia” see Cohen, *Médailles Consulaires*, Pl. VIII, Nos. 1, 2, and *Éclaircissements*, p. 58 sq. M. Barbatius occurs on a coin of Mark

on statue of a warrior (Mars?); 518, on left thigh of an Etruscan aruspex, in a peculiar costume. See also *Micali Italia avanti il dominio dei Romani*,

folio Atlas of Plates; T. XV, Statuette muliebre in bronzo di antico stile.

¹ The shield has disappeared, together with a battle-axe (*bipennis*) which the left hand formerly held.

Anthony the Triumvir, and appears to be the same person as Cicero alludes to, *Philippic* XIII, 2, § 3: "Addite illa naufragia Cæsaris amicorum, Barbas Cassios, Barbatios, Polliones."¹

The two inscriptions on the bronze have been variously explained. Sikler thought that in the former D · L stood for *Decii legatus*, and Q · PL for *Quæstor Publicii*; but more recent critics have not agreed with him. We can hardly doubt that L is the abbreviation of *libertus*, and S of *servus*; Q · PL may be *Quintius Plautius*. TIBER has been interpreted as the equivalent of *Tiberius*, *Tiberinus* or *Tiberianus*. Some have supposed M to be *Magister*, and PR *Procurator*; but this is uncertain. The expansions as given by Eichhorn, Baron von Sacken, and Dr. Kenner are repeated by Jabornegg-Altenfels, *op. citat.*, p. 79.²

CRAXSANTVS also is an uncommon name, probably that of a Greek slave Κράξαντος, derived from κράζω; in Latin *vociferator*, one who cries aloud. We know the gens "Craxsia" from an inscription found at Geneva, and now in the Museum there:

C · CRAXSIO
VOLT · HILARO
ANNOR · XXV
VITALIO · PATER
FILIO · KARISSIMO

Inscriptiones Confœderationis Helveticæ Latinæ, edit. Th. Mommsen, p. 16, No 95.³ The volume of the *Corp. Inscrr. Lat.* containing "Switzerland" has not yet appeared. To those who have not studied Palæography the letters XS may seem strange; but it can be accounted for if we bear in mind that the Romans copied the

¹ Gruter, pag. DCCCCLXXXIX, No. 3, has an engraving of the figure that shows both these accessories—"humana statura major"—which is more correct than *Lebensgrösse* (life size) in the Catalogue of the Museum at Vienna, *loc. citat.*—"Non dissimilis est illi marmoreæ quæ Romæ visitur in hortis Pontificiis sub Vaticano, et putatur Genius Principis vel Antinoi illius, etc."

² The Inscription on the thigh is

read by Dr. Friedr. Kenner, Custos des kaiserl. Münz-und Antikencabinet in Wien. "Aulus Publicius Decimi libertus Antiochenus Tiberius Barbius Quinti Publici libertus Tiberiensis." That on the shield is, according to Eichhorn, "Mareus Gallicinus Vindille libertus, Barbius Lucii libertus Philoterus, procurator Craxsantius Barbius posteris suis."

³ Gens Romana, barbaricæ, ut videtur, originis: v. De Vit, *Onomasticon*.

Greeks, who used XΣ rather than KΣ before the introduction of Ξ. So on coins we have the older form AXSIVS for AXIVS, and a similar orthography occurs in manuscripts still extant. See my Paper on the "Antiquities of Saintes," *Archæol. Journ.*, Vol. XLIV, p. 180, and p. 181 (with note 1), where I have made some remarks on MAXS, *i.e.*, Maxsumo. To the references there given we may add some from more recent authorities:—

Ernest Babelon, *Monnaies de la République romaine*, Vol. I, p. 246, sec. XXII Axia. Sur les monnaies, le nom des *Axii* est orthographié *Axsius*, tandis que dans les auteurs on trouve plutôt *Axius*. On écrivait de même indifféremment *Alexsandrea* et *Alexandrea*, *Maxsumus* et *Maxumus*, *cf. ibid.*, p. 128, *Æmilia*, No. 6; M. *Æmilius* Lepidus, (1) *Lépide, magistrat monétaire*, Nos. 22, 23; Cohen, *Médailles Consulaires*, Pl. I, *Æmilia*, Nos. 6, 7.¹

Dr. Isaac Taylor, *On the Alphabet*, Vol. II, p. 92, says that in inscriptions much earlier than the one on the Virunum statue XΣ as well as KΣ are used for *x*. But, as far as I know, the writer who has treated the subject most copiously is Emil Seelmann in his book entitled *Die Aussprache des Latein nach physiologisch-historischen Grundsätzen*, Heilbronn, 1885, v. esp. *Zweiter Haupttheil, Bildung und Klang der Laute, Consonantismus*, p. 352 *sq.*, and comp. pp. 131, 147, 278. He gives fifteen examples of XS from *Corp. Inscr. Lat.* The first occurs in the so-called *Senatus Consultum de Bacchanalibus EXSTRAD*, and the second on the tombstone of L. Cornelius, Cn. F., Cn. N., Scipio. (Orelli, *Collectio Inscr. Lat.*, Vol. I, p. 150, No. 555, SAXSVM.)

Lastly, our own mediæval coinage supplies an instance of XS: Akerman, *Numismatic Manual*, p. 304 *sq.* William the Conqueror, Pennies, No. 4: *rev.*, SEPINE

¹ I have referred to the denarii of the gens *Æmilia* for a philological purpose. They are also of great historical interest, *e.g.*, one of them with the legend TVTOR REG, guardian of the king—an office which nearly corresponds to our modern protectorate—shows the interference of the Romans in Egyptian affairs; another has on the reverse a basilica, possibly that in which St. Paul pleaded his cause before Nero,

v. Cohen, *op. citat. Éclaircissements*, p. 12, "Il est peu de familles consulaires dont toutes les médailles offrent plus d'intérêt historique que la famille *Æmilia*"; *ibid.*, p. 13, "Marcus Lepide, deux fois consul, grand prêtre, censeur avec Marcus Fulvius Nobilior et prince du Sénat, qui, envoyé par son ordre à Alexandrie pour servir de tuteur à Ptolémée Epiphane, &c."

ON IEXEC (Exeter). In the field a cross, . . . in the angles of the cross the letters PAXS; comp. No. 6. The PAXS type was formerly of great rarity. Ed. Hawkins' *Coins of England*, Vol. I, pp. 75-77, Vol. II, Pls. XVIII, XIX, engraved by Fairholt, Nos. 240-242, p. 77, the legend of the *reverse* contains the name of the moneyer with ON — very rarely OF. *Archæologia*, Vol. XXVI, pp. 1-25, "Description of a large collection of coins (nearly 12,000) of William the Conqueror, found in 1833 at Beaworth, Hampshire." By Ed. Hawkins; plate facing p. 24, of eighteen different types of the two Williams, Nos. 8-10.

Professor Key, *The Alphabet, Terentian Metres, &c*, p. 108, says that in Greek X was merely a guttural aspirate, equivalent probably to the German *ch*. The usual pronunciation of X as K in such words as *Χρίστος* is evidently objectionable, because then there would be two letters, differing in form, but identical in phonetic value. Moreover, there can be no question that the Greek X was a real aspirate, if we bear in mind that the Romans substituted for it H, *e.g.*, *χαίνω*, *hio*; as F and B took the place of *θ*; *θήρ fera*, *θυθαρ uber*. See the initial articles Θ and X in Liddell and Scott's *Lexicon*, 7th edition.¹ Doubtless the Romans found a difficulty in pronouncing these Greek sounds, as we English do with the Welsh double L.²

I have selected the following Inscription found at Magdalenenberg because it is one of the most important:—

luna
rosa dimidia rosa
caput Medusæ
aquilæ duæ pugnantes.

¹ Other examples are *χειλών* hirundo, *χειμών* hiems, *χόρτος* hortus. In the middle of a word NG took the place of X, as in *angor ā s*

² See also initial article H in Smith's *Latin Dictionary*. White and Riddle, under letter X, give some graphic varieties: VXSOR for uxor, VICXSIIT for vixit, CONIVNXS for conjux.

C · VETTIVS · Q · F
 POL EQ LEG VIII AVG
 ANN XLII^{II} STIP XXV^{III}
 IDEM QVAESTOR
 VETERANORVM^M
 ET Q VETTIVS QF
 POL FRATER EQ LEG
 VIII AVG ANN XL ST^{XX}
 H S E
 M METILVS EQ LEG
 VIII AVGET PARRIVS IER
 CV ETI TEST POSVERVNT

ar- torques duo ar-
 milla phaleræ. milla

[Expansion.]

C. Vettius Q. f. Pol[ia] eq[ues] leg[ionis] VIII
 Aug[ustæ], ann[orum] XLII^{II}, stip[endi]orum
 XXV^{III}, idem quæstor veteranorum, et Q. Vet-
 tius Q. f. Pol[ia] frater, eq[ues] leg[ionis] VIII
 Aug[ustæ] ann[orum] XL, st[ipendi]orum XX,
 h[ic] s[itu]s e[st] [de]buit esse siti sunt] M. Me-
 tilius eq[ues] leg[ionis] VIII Aug[ustæ] et P.
 Arrius her[edes] C. Vetti test[amento] posuerunt.

This Inscription was engraved on the tombstone of C. Vettius, who lived forty-eight years, served in twenty-eight campaigns, and was also paymaster (*quæstor*) of veterans; and of Q. Vettius, his brother, who lived forty years and served in twenty campaigns. They were both of the Pollian tribe, and cavalry officers in the Eighth Legion Augusta. The monument was erected by the heirs, M. Metilius and P. Arrius.¹

I have copied the Inscription from Mommsen, *Corp. Inscr. Lat.*, Vol. III, Part 2, No. 4858, rather than from Jabornegg-Altenfel's *Kärnten's Römische Alterthümer*,

¹ *Lapidarium Septentrionale*, No. 719, second line :

VETT
 CANN
 VSLM

But the name of the dedicator Vett. is doubtful, being scarcely legible.

p. 80, No. CLXXXVIII, Pl. No. 6, because the former seems to have made a more careful examination of the original; but the discrepancies are not material.

In Roman history we frequently meet with the *gens Vettia*. The "Onomasticon Tullianum," which occupies Vol. VII of Orelli's edition of *Cicero*, contains no less than fourteen persons who bore this name towards the end of the Republic; and under the Empire it was still more common, as Smith's *Dictionary of Classical Biography* will show, *s.v.*

Among all the Vettii of the former period L. Vettius is the most remarkable. He gave Cicero information concerning the Catilinarian conspiracy, and the orator, writing to his friend Atticus, calls him *ille noster index* (*Epistles*, II, 24). But he figures more prominently four years later, when he accused Curio, L. Æmilius Paulus, M. Brutus and L. Lentulus of being engaged in a plot to kill Pompey, and afterwards mentioned other distinguished Romans as being privy to this design.¹ But he contradicted himself; people therefore suspected his evidence, and thought that the conspiracy was an invention of his own. His career, as an informer, presents a parallel to that of Titus Oates, "a sorry foul-mouthed wretch" (so Calamy calls him), who devised out of spite nefarious schemes and then attributed them to others, naming persons of rank, and even involving the Queen in a charge of high treason. Hume's *History of England*, Chaps. LXVII and LXVIII, supplies many particulars of this intrigue, which became a national disgrace; but if any desire further details, the *Life of Edmund Calamy*, Evelyn's *Memoirs*, and Burnet's *History of His Own Times* will satisfy their curiosity abundantly.²

¹ Cicero ad Atticum *loc. citat.* "Itaque insinuat in familiaritatem adolescentis (Curionis), et cum eo, ut res indicat, sæpe congressus, rem in eum locum deduxit, ut diceret sibi certum esse, cum suis servis in Pompeium impetum facere, eumque occidere." Merivale, *History of Rome*, Vol. I, p. 203. His disclosures tended to implicate the most conspicuous members of the senatorial party, Cato and Cicero, and more especially the younger Curio . . . At every fresh examination he had denounced new names.

² A popular work entitled *Historical*

Parallels, Vol. II, pp. 267-271, contains a good account of the so-called "Popish Plot," contrived by Titus Oates, with a woodcut of a medal—Legend: THE · POPISH · PLOT · DISCOVERED · BY · MEE—representing this impostor, through whose accusations men of importance suffered imprisonment and execution. Compare *Medallie Illustrations of British History*, published by the British Museum, Vol. I, p. 580. The Mutilation of the Hermes-busts at Athens during the Peloponnesian War is related as a corresponding event in ancient times.

The name of Vettius is connected with our own history. One of this *gens* who had the cognomen Bolanus, after serving, A.D. 63, under Corbulo, Nero's commander-in-chief against the Parthians, was appointed governor of Britain, A.D. 69. Tacitus mentions him among the inefficient rulers in the interval between Suetonius Paulinus, who suppressed the revolt of Boadicea, and Cerialis, conqueror of the Brigantes, a formidable tribe occupying nearly all the north of England. Bolanus, though he displayed no military energy, gained popularity by administering his province justly. (*Annals*, XV, 3; *Histories*, II, 65, 97; *Agricola*, 8, 16.)¹

As I have already intimated, the Vettii are known to us from the Romano-British Inscriptions. Four are given by Hübner in the volume of the *Corpus* devoted to this subject. The following seem the most interesting :—

(No. 46.) N A SACRAT
 SSIMA VOTV
 M SOLVIT
 VETTIVS BE
 NIGNVS · LP

N[emesi] A[ugustæ] sacrat[i]ssima votum solvit Vettius
Bolanus . . .

We may observe in *sacratissima* a barbarous form for the Dative *sacratissimæ*. Searth, *Aquæ Solis*, p. 66, discusses the Inscription, of which he has a full page engraving, Pl. XXIV, showing the actual condition of the stone. Perhaps the last words were l[ibens] p[ecunia] s[ua].

(No. 757.) DEABVS NYM
 PHIS VET¹
 MANSVETAI
 CLAVDIA · TVR
 NILLA · FIL · V · S · L

Comp. Bruce, *Roman Wall*, p. 402, with engraving of

¹ See Orelli's note on *Tacitus Ann.*, XV, 3, "Bolani res gestas delineavit et laudibus extulit Slatius, Silv." 5, 2, 30 sqq. When Agricola was appointed to command the 20th Legion in Britain, Bolanus, as governor, was his superior

officer. *Id. Agric.*, cap. 16, eadem inertia ergo hostes, similiis petulantia castrorum; nisi quod innocens Bolanus et nullis delictis inivis caritatem paraverat loco auctoritatis.

the altar and the characters thereon inscribed. He reads MANSVETA VoVIT; but then the words would mean that one person made a vow, and that another performed it, which is unusual.¹

Lastly, we find two forms of the name—Vectius and Vettius. Of the interchange of C and T there are familiar examples in dictus, Italian *ditto*, cocta *cotta* (terra-cotta). Similarly we have LATTVCAE for *lactucae* (*Corp. Inscr. Lat.*, Vol. III, pp. 807, 828, A.D. 301), and PRAEFETTO for *praefecto* (Muratori, *Novus Thesaurus Veterum Inscriptionum*, &c., p. 710, 1). For these citations I am indebted to Seelmann, *Die Aussprache des Latein*, p. 348. Ruperti, in his edition of *Juvenal*, Sat. VII, 150, reads

Declamare doces? O ferrea pectora Vecti,
Cum perimit savos classis numerosa tyrannos!

But Vectius, yet more desperate than the rest,
Has opened (O that adamantine breast!)
A rhetoric school; where striplings rave and storm
At tyranny, through many a crowded form.

Otto Jahn has *Vetti*, which appears to be more correct, as it is in accordance with the Inscriptions. This man may be the same with Vettius Valens, who as Pliny, XXIX, i, 5, §8, informs us, was a paramour of Messalina, and paid attention to the study of eloquence. The part he took in her Bacchanalian orgies, and his execution, are related by Tacitus, *Annals*, XI, 31, 35.²

We read of another Vectius long antecedent to this period. Suetonius, *de Illustribus Grammaticis*, Chap. II, mentions him among the critics who commented on Lucilius, the predecessor of Horace, as a satirist: “ut Lælius Archelæus, Vectius, Quintus Philocomus Lucilii

¹ Expansion of No. 757. Deabus Nymphis Vet(tia) Mansueta[et] Claudia Tur[ia]nilla fil(ia) v(otum) s(olverunt) l(ibentes) [m(erito)].

² *Tac. Ann.*, XI, 31: “feminae pel- libus accinctæ adsultabant ut sacrifi- cantes vel insanientes Bacchæ . . . ferunt Vettium Valentem lascivia in præaltam arborem conisum.” Orelli, in his note, quotes the passage of Pliny mentioned above: “De medicorum sectis: Exortus deinde est Vettius Valens adulterio Messalinæ Claudi Cæsaris nobilitatus pariterque eloquentiæ

adsector; is et potentiam nactus novam instituit sectam” (v. Hardouin *in loco*); where it should be observed that *nobilitatus* (rendered notorious) is used in an unfavourable sense, as in some writers of the golden age. See the Latin dictionaries, s.v. *nobilito*. At a meeting of the Society of Antiquaries a paper on the recently discovered house of A Vettius at Pompeii was read by Mr. Telford Ely; it was reported in the *Athenæum* of 29th February, 1896.

satiras, familiaris sui." The text is uncertain, but the notes of Casaubon and Gronovius show some attempts to emend it.

POL, the abbreviation of *Polia*, occurs in the second line of our Inscription. *Livy*, VIII, 37, relates that the Tusculans revolted, and were brought to trial at Rome. On this occasion the Pollian tribe voted that they should be scourged and executed, and their wives and children sold by auction; which produced a resentment lasting nearly down to the historian's own time. Niebuhr says that "Polia" is the same with "Poblilia," one of the later tribes; just as *molli* and *mobilia* are the same word: "Oscilla ex altâ suspendunt molliâ pinu" (*Virgil, Georgics* II, 389); "Pilentis matres in mollibus" (*Aeneid*, VIII, 666); *Roman History*, Eng. Transl., Vol. I, p. 419, note 977. This remark sounds plausible, but it is not conclusive. In the article "Tribus," *Dictionary of Antiquities*, 3rd edit., p. 880, Col. 1, "Polia" is placed among the seventeen earliest rustic tribes, but "Poblilia" and "Pomptina" were additions made to the list, 396 A.U.C. (*Livy*, VII, 15); and probably the former bordered on the Hernici, as this tribe afterwards included Anagnia, Ferentinum, and Aletrium. "Polia" has been confounded with "Poblilia"; similarly in Petronius (*Satires*, c. 55) there is a passage where P. Burmann (edit. Amstelædami, 1743), reads *Publium* in accordance with all the MSS., but the recent editor, Buecheler, has restored *Publilium*.¹

Vettius is called *eques*. Here we may remark that the cavalry of the Roman army was divided into two classes—the legionary and the allied. *Livy*, in his account of a battle with the Celtiberians in Spain, speaks of the *legionarii* as opposed to the *alarii*. His meaning is clear, because he calls the former *Romani equites* (Bk. XL, Chap. 40); comp. Tacitus, *Annals*, III, 39, and Orelli's note, "Erant itaque (alarii) auxiliares e sociis."² A Roman horse-soldier, trampling on a conquered German, is well figured in Dr. Lindenschmit's *Alterthümer unserer heidnischen Vorzeit, Römische Skulpturen*, Heft III, Tafel 7,

¹ Petronius, l. c., Donec Trimalchio "rogo," inquit magister, "quid putas inter Ciceronem et Publilium interesse?"

² *Corp. Inscr. Lat.*, Vol. III, containing, besides other provinces, Pars

Sexta, Noricum, Nos. 4712-5767. At the end of Part I, conspectus operis, p. xviii, Indices, § 7 res militaris, pp. 1136-1159; Part II, s.v. ALAE, pp. 1142-1148.

Nos. 1 and 2. The learned Curator of the Museum at Mainz calls attention to the fact that the weapons of the northern nations are more exactly represented here than on columns and triumphal arches, where the artists have neglected reality, and indulged their own fancy. Compare Heft XI, Taf. 6, No. 2, *Gravestone of the Dalmatian Andes of the Claudian Ala*. This group I need not now describe particularly, as I have done so already in a paper on the "Roman Antiquities of the Middle Rhine," *Archæological Journal*, Vol. XLVII, p. 200 *sq.*, text and notes. But I may be allowed to observe, in passing, that the Roman monuments in the Museums at Bonn and Mainz deserve far more attention than they usually receive.¹ The collection at the latter place is specially instructive for military accoutrements, and, from its situation on a *grande route* of European travel, very accessible. Too many of our own countrymen and our American cousins seek amusement as their only object in travelling. They lose opportunities of improving themselves and others; and so they return little, if at all, wiser than when they went out.

Subjects similar to the one mentioned above occur on many coins of the Lower Empire. For example, Constantine II, surnamed The Younger, appears galloping to right, and pursuing an enemy who, in his flight, lets his shield fall (Cohen, *Médailles Impériales*, Vol. VI, Pl. VI, facing p. 211, No. 56), with the legend DEBELLATORI GENTT. BARBARR. Nepotian is in the same attitude, and a captive kneels before him (*Ibid.*, Pl. IX, p. 321, No. 2). Decentius, on horseback, transfixes an enemy who is on his knees, holding a spear with his right hand and raising his left. (*Ibid.*, Pl. X, p. 336, No. 14).²

¹ It is evident that statues and reliefs, on account of their greater size, have an advantage over coins and gems, where objects appear in miniature or conventionally treated, so that we are often at a loss to ascertain with precision the ideas which the engraver intended to express.

² A gold *solidus* of Constantinus III, formerly in the collection of the Vicomte Ponton d'Amécourt, has come into my possession. The *obverse* bears the Emperor's bust wearing the *paludamentum*, with diademed head—legend:

DN CONSTANTINVS P. F. AVG—on the *reverse* he holds with his right hand a standard, and with his left a globe surmounted by a Victory crowning him, while he tramples on a kneeling barbarian; legend: VICTORIAAAVGGG, and in the exergue CONOB. The characters on the *reverse* are not easy to interpret at first sight. If we take the first A as the terminal letter of *Victoria* we have only AA corresponding to GGG, meaning Three Augusti. On the other hand, if we take the first A with the following two, we leave only

I will only quote a single Inscription as illustrating that now under consideration: it seems specially apposite, because it commemorates one who, like Vettius, was a cavalry officer, and belonged to the Noric division:—

C · IVLIO · ADARI · F
PRMO · TREVRO
EQ · ALAE · NORIC
STATORI · AN · XXVII
STIP · VII · H · A · S · F · C ·

The heir has erected with his own money the monument to Caius Julius Primus, son of Adarus, a Treveran, a cavalry staff officer in the Noric division, twenty-seven years of age, who had served for seven campaigns.

H · A · S · F · C · should be expanded thus: *H[eres] a[ere] s[uo] f[aciendum] c[uravit]*.

This grave-stone, like the one found at Magdalenenberg, is adorned with reliefs both above and below the Inscription. In the upper relief the deceased appears clothed in a tunic, and mantle on the lower part of his person, reclining on a couch, holding a napkin in the left hand, and supporting the right on his knee. A young servant, with arms crossed, stands at his feet; in front of him is a large jug, and a small table (*mensa tripes*), with fruit and bowls upon it. Büttiger, in his *Sabina*, Taf. XII, Vol II, facing p. 173, has an engraving from Tournefort, *Voyage du Levant*, of a somewhat similar subject; but here the treatment of it is more complicated, as the composition consists of five figures. The lower relief shows a naked man leading a horse, which carries

Victori dative of *Victor* (conqueror of the Augusti), which is unintelligible, so that the case is what Horace denotes by the phrase, *litem lite resolvit*. Mr. Grueber offered a suggestion, which I readily accept, viz., that the standard fills the space which the letter A of *Victoria* would otherwise occupy.

Similarly in our shilling of 1895 part of the motto *Honi soit qui mal y pense* is intercepted by the shields of England and Scotland, the harp of Ireland being placed below, while the rose, thistle and shamrock fill up interstices. For the device compare Pistrucci's coronation medal, on the reverse of which the

three kingdoms are personified, offering the crown to Her Majesty, with the legend *Erimus tibi nobile regnum*.

We have CONOB in the exergue, and the syllable OB was supposed to = 72, the number of *solidi* in the pound of gold; but the discovery of bars of this metal in Hungary, inscribed with OBR, has caused this opinion to be rejected, and it is now generally believed that OB stands for *obryzum*; hence CONOB means pure gold according to the standard of Constantinople. *Forcellini*, ed. De Vit, s.v. Obrussa (testing of gold by fire) Obryza, Obryzatus, Obryzum.

a saddle-cloth and long girths hanging down, and upon it a saddle with pommels and an oval shield. The man holds two spears in his left hand and a long rein in his right.¹

This inscription was found 1831, in making a new road from Xanten (*Castra Vetera*) to Cleve. (Brambach, *Corpus Inscr. Rhenanarum*, Regierungs-Bezirk, Düsseldorf, No. 187, p. 52; Henzen's *Supplement*, forming the third volume of Orelli's *Collection*, p. 370, No. 6838). A crack goes through the lower relief, probably made in removing the stone to Trèves, where it has found a resting place among the Römischen Steindenkmäler des Provinzial Museums, a handsome building which was being erected when I visited that city in 1887, and is now completed.

I have not found *Adarus* in any list of Latin proper names; it is probably Celtic, and may be the same as reappears in the Scotch family Adair, and the Irish town, Adare, co. Limerick.

The term *Stator* requires some explanation. Besides the authors, in Inscriptions we have *Stator Prætorius* and *Augustorum*. It seems to denote an officer attached to the staff of a general or governor, and employed to receive and carry despatches; he probably had other duties that we are now unable to define accurately.²

In both cases I have translated *eques* a cavalry officer, because the ornamental character of monuments on which this word occurs sufficiently indicates that a common horse-soldier cannot be meant. Moreover, in at least two passages of Cæsar's *Commentaries* this interpretation seems to be required by the context. The first is Chap. LXXVII of Book I, *De Bello Civili*. The author is here relating the war with Pompey's lieutenants, Afranius and Petreius, in Hispania Citerior (Northern Spain). He says that some of the enemy's military tribunes and centurions voluntarily remained in his camp, and were afterwards highly honoured by him; together with them he mentions Roman *equites*, as if they were of the same or similar rank. Again, *ibid.*, Book III, Chap. LXXI, after the account of his loss of 960 soldiers near Dyrrhachium,

¹ Hettner, *Trier. Inscr.*, No. 308, p. 133 sq.

² Cicero, *Epistolæ ad Familiares*,

II, 19, 17; X, 21. *Gruter Inscr.*, 1031, 3; 600, 6; 631, 3. *Stator civitatis Viennensis*.

previously to the decisive action at Pharsalia, he subjoins the names of four *equites* who apparently commanded the cavalry.¹

Mommsen, *Res gestæ Divi Augusti ex monumentis Ancyrano et Apolloniensi*, p. 46, gives the names of the legions and their quarters tabulated. Here we find the Eighth Legion Augusta stationed in Pannonia; and the veterans who also have a place in our Inscription are said to have been removed thence to *Berytus* (Beirout), A.U.C., 738.

The *quæstors* were important officers in the Roman army, accompanying the consuls when they took the field, and having charge of the funds. They had their tent (*quæstorium* sc. *tentorium*) near the Porta Decumana, in the part of the camp farthest from the enemy. (See *Das Römercastell Saalburg von A. v. Cohausen Oberst zu Dienst und Conservator und L. Jacobi, Baumeister*, p. 30, and Taf. II; or Fischer's *English Translation*, p. 15, Pl. II. Q. as an abbreviation for Quinarius, i.e., half denarius, occurs on coins, which I mention lest it should be mistaken for Quæstor. (Mommsen, *Geschichte des Römischen Münzwesens*, p. 493, No. 19.)²

Cohen, *Médailles Consulaires*, p. 215, Pl. XXVII, has a denarius of the gens Metilia, a plebeian family, with Victory crowning a trophy, and the letters C R O T in the field vertically arranged. He explains it as referring to T. Metilius Croto, deputy of Appius Claudius and prætor in Sicily, B.C. 215; but M. Babelon seems disposed to follow Mommsen, who infers, from comparison with a *victoriat* struck at Vibo, that CROT means the *atelier monétaire* at Croton.³ We may observe that both these cities were in Bruttii, and thus a similarity in their types would be

¹ Bell., *Cir.* I, 77: "Cæsar qui milites adversariorum in castra per tempus colloqui venerant . . . *centuriones* in ampliores ordines, *equites* Romanos in tributum restituit honorem." *Ibid.*, III, 71: "Duobus his unius diei præliis Cæsar desideravit milites DCCCCLX, et *notos equites Romanos* Felginatem Tuticanum Galum, senatoris filium; C. Felginatem, Placentia; A. Granium, Puteolis; M. Sacrativirum, Capua; *tribunos militum* et *Centuriones* XXXII." De Vit,

Onomasticon, gives another form of the name Felginas; C. Fleginas, Placentinus, eques Romanus in exercitu Cæsaris, ad Dyrrhachium interfectus.

² Smith's *Dict. of Ant.*, 3rd edit., p. 534, col. a. Receipts and payments passed through the Quæstor's hands, and he seems to have been in charge of military stores.

³ Babelon, *infra*, Vol. I, p. 56, *Classement chronologique*, Note 2, reference to Borghesi.

accounted for: *Monnaies de la République Romaine*, s.v. Mæcilia, Sect. XCII, Vol. I, p. 158 and Note 5; p. 159, Note 1; with references to *Livy*, IV, 48, XXIII, 31, where the various readings of Madvig and Weissenborn should be collated. M. Babelon says that Cohen is mistaken when he treats Metilia as a different gens from Mæcilia; but I think the opinion of the earlier numismatist will be confirmed by examining the passages in *Livy* where these names occur. (See the reprint of Drakenborch's *Livy*, with Crevier's Notes, Lond., 1842, Tom III; Index in *T. Livii historiarum libros*, s.v. Mæcilius et Metilius.) To the former of these families the Emperor Avitus, A.D. 455–6, belonged; he was father-in-law of the well-known author Sidonius Apollinaris, who addressed a Panegyric to him. An *aureus* of Avitus is reproduced in the *Illustrated Catalogue of the Collection D'Amécourt*, Pl. XXXII, No. 815, p. 129.¹ It bears many signs of a late and degenerate age. On the *obverse* his bust appears crowned with a diadem of pearls; the *reverse* shows him trampling on a captive.

There still remains to be noticed the name of Arrius, more interesting than any that have preceded—a name which a Roman lady has by her heroism made illustrious for ever. The younger Pliny, *Epistles III*, 16, relates how Arria accompanied her husband to Rome, when he was accused of taking part in the revolt of Scribonianus, and encouraged him to commit suicide. She unsheathed a sword, plunged it in her breast, then drew it out, and, presenting it to him, said, “Pætus, I feel no pain,” “words,” says Pliny, “immortal and almost divine.” Martial wrote a good epigram on this subject, I, XIII, (XIV).

Casta suo gladium cum traderet Arria Pæto,
Quem de visceribus strinxerat ipsa suis,
“Si qua fides, vulnus quod feci non dolet,” inquit;
“Sed quod tu facies, hoc mihi, Pæte, dolet.”²

The coins of the *gens Arria* deserve attention. One of

¹ Legend: D. N. (Dominus noster) AVITVS PERP. FAVG: *reverse*: VICTORIA AVGG.

² Böttiger, *Sabina* (Vol. I, p. 314; Vierte Scene—Anmerkungen, S. 297, 2): Dass man sich nur eines Messerchens

zum Nägelabschneiden bediente, beweist auch die bekannte Anekdote vom Heroismus der Porzia, der Gemahlin des Brutus, beyrn Plutarch in vita Bruti, c. 31, T. VI., p. 237 und Valerius Maximus III, 215.

them probably shows us the head of Q. Arrius, who defeated Crixus, a lieutenant of Spartacus in the gladiatorial war. Another bears on the *obverse* the letters F. P. R., *i.e.*, *Fortunæ populi Romani*; on the *reverse* we see a spear between a laurel crown and a square object, which some call a *phalera*; but according to Eckhel, Vol. V, p. 143, it is a kind of altar. (Cohen and Babelon, s.v. *Arria*; and *Collection d'Amécourt*, Pl. I, No. 6, p. 2.) Exception may be taken to the former interpretation, because the *phalerae* were usually circular bosses, but sometimes in the form of pendants, like earrings. (See Rich, *Companion to the Latin Dictionary*, s.v. *phalera*, and *eques sagittarius*.) The word is probably never found in the singular number, as more than one was worn by the person thus decorated. So Cælius, in the remarkable monument preserved at Bonn, has five on his breast, connected by leather straps. (Lindenschmit, *op. citat.*, Heft VI, Taf. 5.)¹ The Greek word also, *φάλαρα*, is plural; the singular occurs only in Æschylus, *Persæ*, 661 (652),

Βασιλείου τιάρας φαλαρον πιφαύσκων,

and seems to mean the cheek-covering, part of the tiara worn by Parthian Kings and seen on their drachms. (Linwood, *Lexicon to Æschylus*, and Liddell and Scott, s.v.; Buttmann, *Lexilogus in φάλος*; Lindsay, *History and Coinage of the Parthians*, Pl. 2, No. 25 *sqq.*, Arsaces VIII (Artabanus II), &c.)²

These Vettii must not be confounded with the Vettii in Macedonia (*Livy*, XLV, 30, *Tertia regio nobiles urbæ*,

¹ Conf. omnino Baumeister, Denkmäler des Klassischen Alterthums," an excellent Article, s.v. *Waffen* (Greek and Roman), pp. 2015–2078, 2051 links oben, 2062 links unter. Part II (Roman) begins p. 2043, v. esp. engraving (*Abbildung*) 2263, nearly full 4to page facing p. 2050, Grabstein eines in der Varusschlacht gefallenen Vice-Centurionen. Böttiger, *op. citat.*, Vol. II, p. 101; S. 83, 1): Zum Brust- und Stirnenschmuck der Pferde, die mit dem allgemeinen Namen *phalera* genannt wurden (S. zum Silius Italikus XV, 255), gehörten auch wohl bei ausserordentlichen Gelegenheiten Perlenschnüre. . . . Hierher gehören die in der Aufzählung des männlichen Luxus von Plutarch

angeführten *περιῶραια ἵππων* (ornaments round the necks of horses) in den *præcept. conjug.*, c. 48, T. I., Pt. II, p. 571. Wyttenbach.

² *Arria* and *Pætus* are names that have been given improperly to the group of a Gaul and his wife—the former stabbing himself—in the Sculpture Gallery of the Villa Ludovisi at Rome—No. 28 in the large room (Murray's *Handbook for Rome*, Sect. I, §33). The details indicate a Celtic race, as in the so-called dying gladiator. Emil Braun, *Ruins and Museums of Rome*, pp. 341–343, describes the male figure as a Gallic leader breathing his last on the field of battle.

Edessam et Berceam et Pellam, habet, et Vettiorum bellicosam gentem). where we may notice the coincidence in the epithet *nobiles* with the Acts of the Apostles, XVII, 11, οἱτοὶ δὲ ἦσαν ἐυγενέστεροι τῶν ἐν Θεσσαλονίκη: "These were more noble than those in Thessalonica." Authorized Version; *generosiores*. Translation by Theodore de Bèze, usually called Beza.¹

There was a people with a similar name, Vettones, in Lusitania, between fl. Durus (Douro) and Anas (Guediana), also called Vectones; they occur three times in *Cæsar. De Bello Civili*, lib. I, c. 38. The penultimate quantity of this word is long in Lucan, *Pharsalia*, IV, 9—

His præter Latias acies erat impiger Astur,
Vettonesque leves;

but in Greek we have two forms—Οὐέττωνες and Οὐέττονες, so that the quantity seems doubtful. Comp. Suessiones, Σουεσιῶνες and Σουέσσονες, Soissons. (*Cæsar, Bell. Gall.*, II, 3, 4, 12 proximi Remis, 13.)² In the country of the Vettones was situated Alcántara (Arabice, "Al-Kan-tarah,"

¹ The name of the Reformer is more accurately written Besze. He was a Frenchman by birth, but specially connected with Geneva during his active life, in these respects resembling Calvin, to whose functions and ascendancy he succeeded. The *Codex Beza* is one of the most valuable treasures in the Library of the University at Cambridge; accordingly it is made conspicuous by being deposited in a glass case by itself. It contains the text of the Gospels and Acts of the Apostles, and is described by Tischendorf, 2nd stereotype edition of the New Testament 1862, p. XVI, among the Codices Græci iique uncialibus litteris scripti a seculo IV usque ad X. The edition by Dr. Scrivener is said to be the most elaborate of his writings, and I presume that it will be more useful to Biblical students than that of Kipling Cantabrigiæ, 1793. See also Horne's *Introduction to the Holy Scriptures*, 9th edition, 1846, Vol. II, pp. 113–117 (IV D), with full-page facsimile; *ibid.*, Vol. V, p. 15 seq. The MS. was presented to the University by Beza in the year 1581. His Translation of the New Testament, Cambridge, 1642, has been reprinted by Bagster (London, 1832) in a pocket volume. It may interest scholars to compare it with the Old Italic Version and Jerome's *Fulgate*.

Recent publications have imparted fresh interest to this MS.; I refer to *A Study of Codex Beza*, by Professor Rendel Harris, and *The Church in the Roman Empire before A.D. 170*, by Professor W. M. Ramsay. From the latter we gather that the revision of the *Codex* was made by a native of Asia Minor, who was familiar with the topography of that region, v. Ind., pp. 36, 52–4, 87, 94, 128n., 140, 151–63, 167, 418; but the list is incomplete; see esp. Chap. VIII, pp. 151–167. In some cases the reading preserved in *Codex Beza* is better than that of the text usually received. Acts xvii, 12, following the verse quoted above, it says: "some of them therefore believed and some disbelieved," instead of "many of them believed." Perhaps the discrepancy arose from the jealousy (φθόνος) with which the Greeks of different districts regarded each other. (Ramsay, *op. citat.* 3rd edition, p. 160.)

² Ptolemy, *Geographia*, 'Ουέσσονες II, IX, § 6, edit. Car. Müller, p. 224. Ουέσσονες, ὧν πόλις ὁμοίως ἀπ' ἀνατολῶν τῶν Σηκοάνα ποταμῶν (Sequana fl., Seine). Various forms of the name and references are given in the note. For the Vettones in Lusitania v. *ibid.*, II, 5, § 7, p. 140.

the bridge), Lancia of the Vettones, Norba Cæsarea of the Romans, on the river Tagus, famous for the Trajani Pons, 210 feet high. (Ford, *Handbook for Spain*, p. 270 sq., edit. 1878.) A plant is named after this people, being called in Latin *vettonica*, *vetonica*, and *betonica*; in English, *betony*. Pliny says that wine is made from it; that its leaves, when dried, yield a kind of flour, and that it has also many medicinal properties, whence the Italians derive their proverb *Aver più virtù che la bettonica*.¹

Lastly, the coins of the *gens Vettia* present an interesting type: *Obverse*, head of Tatius, King of the Sabines, with monogram $\overline{A}$, i.e., TA in ligature; *reverse*, man standing in *biga*, wearing *toga*, and holding a sceptre; behind him an ear of corn; legend T. VETTIVS IVDEX. The head of Tatius alludes to the descent of the *gens Vettia* from a Sabine origin. We have probably on the *reverse* Sp. Vettius, administering justice (*judex*). He was the *interrex* after the death of Romulus, who caused the people to vote for the election of Numa; and his ear is supposed to be the oldest form of the *sella curulis*, the adjective being connected with *currus*. The ear of corn may refer to the functions of the moneyer, who as *ædile* would have charge of the distribution of provisions to the people. This is M. Babelon's interpretation, *op. citat.*, Vol. II, pp. 530-532, and seems, to say the least, plausible. Cavedoni and Mommsen, however, say that the personage on the *reverse* is Numa, and explain the ear of corn as symbolizing a division of lands which he ordered. (See also Admiral Smyth, *The Northumberland Cabinet of Roman Coins*, Tablet XVI, p. 253 sq., where the above-mentioned denarius is fully described, with the opinions of Eckhel and Riccio about it.²

¹ Strabo Σουσιωνες, Lib. IV, Cap. III, § 5, p. 194, ed. Didot. Pliny *Nat. Hist.*, Lib. XXV, Cap. VIII, Sect. 47, §85: "Vettonica dicitur in Gallia, in Italia autem serratula, a Græcis cestros aut psychotrophon, ante cunctas laudatissima." The references to passages, where betony and diseases it will cure are mentioned by this author, fill more than one column in the Index to Sillig's edition. Forcellini's article is under the heading "Betonica," but he calls attention to the affinity of the letters V and B. Compare with Pliny's statements

C. Knight's *Cyclopædia of Natural History*, s.v. Stachy's (σταχὺς, a spike), column 887. Betony is said to be a popular remedy, the roots acting as purgatives and emetics. *Dizionario della lingua Italiana della Accademia della Crusca*, Art. "Betonica e Brettonica. Erba notissima, e di molte virtù," where the plant is fully described.

² Cohen, *Monnaies de la République romaine*, p. 327, No. 175. Vettia. Famille très-ancienne, Pl. XL, Nos. 1, 2; p. 328, Éclaircissements.

For the reliefs adorning this tombstone I know no better illustration than the monument of Cælius, engraved in Lindenschmit's *Alterthümer unserer heidnischen Vorzeit*, Heft. VI, Taf. 5; also in his *Tracht und Bewaffnung des Römischen Heeres während der Kaiserzeit*, Braunschweig, 1882, p. 16 sq. Taf. I., figs. 1–6, Cælius and two other centurions.¹ It is unnecessary to discuss the military decorations (*torquis*, etc.,) in detail, as copious information on these subjects will be found in English, French, German works of reference: Smith, *Dictionary of Antiquities*, third edition; Daremberg et Saglio, and Baumeister. I will only add that *phaleræ* appear to have been worn as ornaments by ladies also, which is inferred from a passage in the *Satires of Petronius*, where the author quotes Publilius—*matrona ornata faleris pelagiis*—probably meaning *coral*; so De Vit explains the phrase in his edition of *Forcellini*, s.v. *phaleræ*.²

Among the antiquities of the Roman Empire the roads are by no means the most conspicuous, but they deserve to rank among the most important, showing as they do the military character of the people, their engineering skill, and the relations subsisting between different cities. Aquileia, we know from Strabo, was fortified as a bulwark of Italy against the barbarians north of the Alps; its proximity to the Adriatic contributed to make it a great commercial centre, where slaves, cattle and hides were exchanged for wine,

¹ The monument of Manius Cælius is not at Mainz, but in the Provincial Museum at Bonn, of which Dr. Klein is Director. Er wurde, wie Overbeek in dem *Kataloge des königl. rheinischen Museums vaterländischer Alterthümer in Bonn* nach einer Angabe der *Annales Cliviae* bemerkt, bei Xanten (Castra Vetera) im Jahre 1633 gefunden. It has shared the fate of many other antiquities discovered at Xanten in being removed to other localities. A fine statue was recently found there, and purchased at a high price for the Berlin Collection. Hence the traveller who visits the place, which is not far from Cleve, will meet with little to reward him for the trouble of making a *détour* to a dull country town. See

also *Führer durch das Provinzial-Museum zu Bonn*, 1895, p. 13 sq. *Das Denkmal ist ein Cenotaph und wahrscheinlich auf dem zweiten Feldzug des Germanicus in Deutschland (15n Chr.) errichtet.*

² *Petronii Satiræ*, edit. Buecheler, p. 64, cap. 55:

“An ut matrona ornata faleris pelagiis
Tollat pedes indomita in strato extruere?”

V. edit. Burmann, 1743, tom. I, p. 359, note, Ornamentis marinis, glossæ; alii patagiis (edging or border). Buecheler, in his note, p. 63, on the words “Quid putas inter Ciceronem et Publilium interesse?” says “Publilium restitui, Publium libri omnes.”

oil and products of the South brought thither by sea.¹ Now, there were three roads leading from Aquileia to Virunum, a proof of frequent intercourse between the two cities—(1) through Krain and Untersteier (Carniola and Lower Styria) marked in the Table of Peutinger; (2) through Görz (Gorizia) and over the Prediel, according to the *Antonine Itinerary*; (3) through Friaul (Friuli) and Villach (Santicum), also in *Itin. Antonin.* On the other side, proceeding northwards from Virunum we have—(1) to Ovilabis (Wels) on the Danube, where the railways from Passau and Salsburg meet, through Noreia (Neumarkt), the ancient capital of the Taurisci in Noricum; (2) to the same place, through Candalica (Hüttenberg); (3) to Juvavum (Salzburg), through Immuriun (Murau), *cf.* Murius Fl. hodie Mur. Belandrum stood at the junction of numbers (1) and (3), hodie Friesach, near the frontier of Ober Steiermark, and not far from Judenburg. The former place is well known to numismatists on account of the coins minted there, like those struck by the Patriarchs of Aquileia.² The neighbourhood of the latter (Judenburg) has yielded the remarkable *Vas Diatretum* now in the Museum at Buda-Pest, which I have described in my paper on Antiquities in that city.³

If a short digression may be pardoned, the subject tempts me to say, in passing, that our own country presents one of the best examples of a Roman road, viz., at Blackstone Edge in Lancashire, close to the boundary between that county and Yorkshire. It is in very good preservation, and has the singular feature of a central groove or trough for the drag on wheels of waggons going down hill.⁴ (See Mr. Thomson Watkin's *Roman Lanca-*

¹ Strabo, lib. V, cap. I, § 8, 'Ακυλῆία δ', . . . ἐπιτεχισθὲν τοῖς ὑπερκειμένοις βαρβάροις . . . ἀνέιται δ' ἐμπόριον τοῖς περὶ τὸν Ἰστρον τῶν Ἰλλυριῶν ἔθρεσιν κομίζουσι δ' οὗτοι μὲν τὰ ἐκ θαλάττης καὶ ὄνον ἐπὶ ξυλινῶν πῖθων ἀρμαμάταις ἀναθίντες καὶ ἑλαιον, ἐκείνοι δ' ἀνδράποδα καὶ βοσκήματα καὶ ἐέρματα.

² For the coins of Friesach, see *La Zecca de' Patriarchi d'Aquileia*, Studio di Alberto Puschl, Trieste, 1884, p. 8 and *seqq.* A Frisacco gli arcivescovi di Salisburgo possedevano già dall' anno 1130 una zecca, i cui conî s'erano in breve volger di tempo diffusi in lontane

regioni: with references in the notes to Professor Luschin von Ebengreuth, *Die Agleier*; Grote, *Die Münzen des südlichen Oesterreichs im Mittelalter*. *Neue Folge der Blätter für Münzkunde*, Vol. I, and other authorities.

³ *Archæol. Journ.*, Vol. L, p. 322 *sq.*, text and notes.

⁴ Some account of Roman roads with grooves will be found in the *Congrès Archéologique de France*, XLVI^e Session, *Séances générales tenues à Vienne en 1879*, pp. 277-288, *Memoir* by M. Caillemet. Les voies à rainures chez les anciens. But these were made for a

shire, pp. 56–62.) He has a full quarto page engraving opposite p. 60, and a diagram at p. 61; also compare the map prefixed to his book.¹

The roads previously mentioned were made in a northerly direction, and maintained the military communications between Italy and the Danubian frontier; but others were carried from West to East, through the valleys of the Gail and the Drau, with some deviations; whence we see that the Romans had occupied the province completely.

Of these *Viaë Norici* it may suffice for the present to enumerate the following:—From Aguntum (Lienz) to Rætia (Tirol); from Virunum towards Celeia (Cilli in Unter Steiermark); from Celeia to Pœtovio (Pettau)²; from Juvavum (Salzburg) to Pons Æni (Innsbruck); Ripensis on the banks of the Danube from Vindobona (Vienna) to Boiodurum (Innstadt, a suburb of Passau). Further information will be found in the *Corp. Inscr. Lat.*, III, 2, pp. 692–702, with an excellent map at the end

different purpose, viz., to diminish friction and thus to facilitate the motion of carriages; so they corresponded somewhat with our modern tramways. P. 278: “Les anciennes traces de roues, si fréquentes sur le sol rocheux de la Grèce, ne sont pas des ornières creusées par un long usage, mais bien des rainures, préparées artificiellement, à des distances calculées sur la largeur ordinaire des chars, dans le but d’assurer la direction des roues et de faciliter la traction des fardeaux sur un terrain accidenté.” Compare p. 281, Plates facing p. 280: I, Voie antique du Val de Fier (Haute-Savoie); II, Plan de la Voie complète avec rainures transversales pour empêcher le glissement des bêtes de trait—Profil (*i.e.*, section). From a careful examination of these grooves—of their form, depth (sometimes even thirty centimètres), and their distances from each other—it seems to follow that they were not ruts of wheels, but constructed with the design mentioned above.

¹ In Smith’s *Dictionary of Greek and Roman Antiqu.*, 3rd edition, Vol. II, p. 947, this engraving is reproduced on a smaller scale, as an illustration of the article *Via*. For the whole subject of materials and methods of construction v. *ibid.*, § 2, pp. 950–953, with three woodcuts.

² Pœtovio was an important Roman station, where, as Tacitus informs us (*Histories*, III, 1), the leaders of the Flavian party met to arrange their plan of campaign against Vitellius. This form of the word is correct, occurring here in the Florentine MS., as well as in a Spanish Inscription, “extra Tarragonam”; v. Orelli note, *loc. citat.*, and his Collection, No. 3592. *Antonine Itinerary*, edit. Parthey and Pinder, with the pagination of Wesseling: Index, Pœtovione, 261, 262 (bis), 265; Pata-vione, 129; Petovione, 561. We find also Petobio; v. Bailey’s *Auctarium* appended to the English edition of Forcellini’s Lexicon. There were roads from Pettau to Vindobona (Vienna), Carnuntum (prope Petronell on the Danube) and to Siseia (Sissek on the Save). An account of antiquities found at Pettau is given in the following publication: *Römische Bildwerke Einheimischen Fundorts in Österreich herausgegeben von Alexander Conze*, II Heft, Sculpturen in Pettau und St. Martin am Pacher mit Tafel V–X (Wien), 1875, 4to, Separatabdruck aus dem XXIV. Bande der Denkschriften der Philosophisch-Historischen Classe der Kaiserlichen Akademie der Wissenschaften.

of the volume.¹ We should bear in mind that ancient Noricum extended far beyond the limits of Carinthia, which is only Mid-Noricum; for Ptolemy informs us that it was bounded on the West by the River Enus (Inn), on the North by the Danube, on the East by Mons Cetius, and on the South by the part of Pannonia under that mountain and the Caravancas above Istria.²

I proceed now to notice briefly some objects of Art and Antiquity found in Carinthia, and especially at Virunum (Zollfeld), partly because there is no room for insignificant places within the narrow space of a paper, partly because this site has rewarded explorers with remains far more important and interesting than any other.

Travel is often very disappointing; the archæological tourist not infrequently visits some spot famous for its associations—political, literary, or æsthetic—and returns to his hotel from a day's excursion having caught nothing, or next to nothing. In many cases the barbarians of the Dark Ages have scarcely left a single stone above ground; in others, the most valuable monuments have been transported to Museums more or less remote. Zollfeld forms

¹ A good map of the Roman roads accompanies Baron Hauser's little book entitled *Die alte Geschichte Kärntens von der Urzeit bis Kaiser Karl dem Grossen neu aus Quellen bearbeitet*, Klagenfurt, 1893—Kärntens *Römerstrassen*, Maesstab 1: 1,000,000, with useful indications, Zeichenerklärung, Römische Ortsnamen, Jetzige Ortsnamen; nachweisbare Römerstrassen, alte Strassen mit römischen Funden. Ancient routes and names of places are distinguished by being coloured red. Consult also Kärntens *Römische Alterthümer*, von Mich. F. v. Jabornegg-Altenfels, 4to, 1871. Maps at the end of the volume: No. I, Situations-Plan des Zolfeldes mit Andeutung der Ausdehnung von Virunum; No. III, Situations-Karte des Jaunthales in Unter-Kärnten mit Andeutung der Ruinen der römischen Station Juenna, heute Globasniz; and Karte von Kärnten mit Bezeichnung der römischen Alterthümer und Strassenzüge mit einem Segmente der Peutingerschen Tafel von Ost-Noricum. The roads from Aquileia to Virunum mentioned above are described, p. 1 sq.,

in a tabular form under the following heads, viz.. Roman name of station, Distance to next station, Present name of Roman station. See p. 4 sq. for three roads from Virunum—two to Ovilabis and one to Juvavum. In addition to these lists the author furnishes us with many explanations, correcting the errors of earlier antiquaries, e.g., Jordan and Muchar, and identifying the ancient routes by means of modern names of places derived from the Roman, and existing remains, such as milestones, pavements and monuments recently discovered.

² Lib. II, Cap. 13, § 1, Vol. I, p. 285, ed. Car. Müller: Τὸ Νωρικὸν περιορίζεται ἀπὸ μὲν δύσεως Ἄλιψ ποταμοῦ, ἀπὸ δὲ ἄρκτων μέρει τῶν Δανουβίου τῷ ἀπὸ Ἄλιου ποταμοῦ μέχρι τοῦ Κετίου ὄρους . . . ἀπὸ δὲ ἀνατολῶν ἀντὶ τῷ Κετίῳ ὄρει, ἀπὸ δὲ μεσημβρίας τῷ τε ὑπὸ τὸ εἰρημένον ὄρος μέρει τῆς Παιονίας τῆς ἄνω . . . καὶ τῷ ἐντεύθειν ὑπὲρ τὴν Ἰστρίαν ὄρει, ὃ καλεῖται Καρυνάγκας (hodie *Karavanken*). On the last word Car. Müller has a long note.

no exception, for the finest statues and wall paintings have found their final resting-place in the Kunsthistorische Sammlungen at Vienna¹ or the Rudolfinum at Klagenfurt.² This classic ground of Carinthia can

¹ Two of the great treasures of this Collection are the so-called Senatus-Consultum de Bacchanalibus, a bronze tablet—*Die Sammlungen des K. K. Münz- und Antiken-Cabinetts*, beschrieben von Freih. von Sacken und Dr. Kenner, pp. 111–114—and the so-called Apotheosis of Augustus (Gemma Augustea), *ibid.*, pp. 420–422, the most beautiful cameo that remains to us from antiquity (well figured among the plates appended to Bernoulli's *Römische Ikonographie*, Zweiter Teil, I), inferior in size, but far superior in workmanship to a similar one at Paris: Chabouillet, *Catalogue général et raisonné des Camées et Pierres gravées de la Bibliothèque Impériale*, etc., pp. 28–31, No. 188, *Camée de la Sainte-Chapelle*. Apotheose d'Auguste.

These objects are well known, so that they need no further notice here, but such cannot be the case with the Heroum of Trysa (Gjölbaschi) in Lycia, near the island of Rhodes, because it is a recent addition to the Museum, having been discovered in 1842, and explored by an expedition sent out under the auspices of the Austrian Government in 1881 and 1882. The monument consists of a court enclosed by walls forming an irregular quadrangle, and containing remains of a sarcophagus and other tombs. In these walls the two upper rows of stones are adorned inside with reliefs; only the South front towards the sea is also decorated outside with a double frieze. The limestone found in the country is the material employed. A reconstruction of the Heroum and its immediate surroundings occupies the centre of the room, to whose walls the sculptured slabs are attached.

Dr. Schneider regards them as illustrating both art and literature—the pictures of Polygnotus and his school, known to us from the descriptions of Pausanias (I, 15, and esp. X, 25–31, &c.) and from painted vases. Müller-Wieseler, *Denkmäler der alten Kunst*, Part I, p. 34, Taf. XLIII, No. 202, Zur Vergleichung mit Polygnot's grossem Gemälde in der Halle von Delphi. *Handbuch der Archäologie der Kunst*, § 134, 3. Sir George Scharf, *Introduc-*

tion to Wordsworth's Greece: Pictorial, Descriptive and Historical, pp. 56–60, Figs. 104–107; and the Cyclic poems whose titles have come down to us, e.g., the Thebais, relating events preceding the Iliad, and the Æthiopis continuing “the tale of Troy divine”; Clinton, *Fasti Hellenici*, Vol. I, Appendix, pp. 345–358, with ref. to the Chronological Tables, esp. p. 152 *sq.*, for Arcinus of Miletus. C. O. Müller, *Hist. of Greek Literature*, Vol. I, Chap VI; “The Cyclic Poets,” pp. 86–96, English Translation.

The following subjects are represented in the frieze: War of the Heroes against Thebes, Landing of the Greeks at Troy, Battle of Amazons and Greeks, Contest of Lapithæ and Centaurs at the marriage of Pirithoüs, Bellerophon conquering the Chimæra, Banquet with dancing, Ulysses killing the suitors of Penelope, the Calydonian boar-hunt, Siege and taking of Troy, Battle with the Amazons, Rape of the Leucippides, Hunting scenes, Four exploits of Theseus.

Such are the interpretations of the sculptures proposed by Dr. Schneider in the *Uebersicht der kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauses*, Wien, 1892, pp. 379–387; but they have not been universally accepted. Dr. Wilhelm Gurlitt, Professor of Classical Archaeology in the University of Gratz, informed me that he was of a different opinion, and that his views had met with approbation.

We may compare with the Heroum of Trysa monuments from the same region, which our fellow countrymen have discovered and which are now deposited in our National Collection: v. Sir C. Fellows, *Travels in Lycia*, with numerous Plates, and Vaux, *Handbook to the Antiquities of the British Museum, Lycian Room*, pp. 143–163.

² A general account of the Rudolfinum will be found in a useful publication entitled *Minerva*, edited by Dr. R. Kukula and K. Trübner, “Jahrbuch der gelehrten Welt, Vierter Jahrgang,” 1894–1895, p. 343 *sq.* This Institution consists of two parts: I, Historisches Museum und Monumentenhalle, con-

be reached from the latter place in twenty minutes by railway; but it is preferable to take a carriage, and enjoy the beautiful views—on one side of nearer hills sloping down towards an extensive plain, and on the other of the lofty ranges of the more distant Karawanken Mountains.

As I have already hinted, there is little to be seen *in situ*. We made our way into an upper room of a very humble dwelling, like a pot-house, containing a local collection—amongst other things, coins of Hadrian and Antonine, a lamp, strigil (scraper), bronze handle, fragments of an amphora, flue of a bath and mosaic, stylus (iron pen), armilla (armlet), spoon, button and ear-ring. For a trifling gratuity the old woman in charge was very willing to show and expatiate on her treasures; but they were of little value, and such as one meets with in the provincial museums of any country once occupied by the Romans. Instead of wasting his time at Zollfeld, the visitor had better return to Klagenfurt, and read the excellent *Führer durch das Historische Museum* by the learned Director, Baron Hauser, which will enable him to study with pleasure and profit the objects preserved therein.¹

Case 3 contains exclusively the finds at Magdalenenberg. There are only casts of the Hermes Logios so-called, and of a bronze griffin; the latter was discovered in the year 1843 by an agricultural labourer, while ploughing. It is 16 inches high and of fine workmanship. I exhibit an engraving of it, from Jabornegg-Altenfels, Pl. No. 7, §CXCIV. The ancients connected the griffin with Apollo as an attribute, of which we have an example in a mosaic at Palermo²; so this imaginary creature would

taining 250 Roman and other ancient stones, prehistoric and Roman objects found in excavations chiefly at Zollfeld and Magdalenenberg, arranged according to their *provenance*—collections of arms and wood-carving—a valuable cabinet of coins, upwards of 11,000 pieces, and a Library and Archives—14,000 original documents; II. Naturhistorisches Museum—collections relating to natural sciences, with botanic garden and special Library. *Illustrierter Führer durch Kärnten mit Besonderer Berücksich-*

tigung der Städte Klagenfurt und Villach sowie der Kärntnerischen Seen und Ihrer Umgebungen von Josef Rabl, Wien, 1884, p. 6.

¹ This Guide is a small pamphlet, pp. 88, and costs only 30 kreuzers, rather more than a franc. The Fourth Edition, 1893, is an improvement on its predecessors (*verbesserte*).

² My Paper on "Antiquities in the Museum at Palermo," *Archæological Journal*, 1881, Vol. XXXVIII, p. 149, text and notes 1 and 2—Apollo riding



BRONZE GRIFFIN
FOUND AT MAGDALENENBERG.



be analogous to the eagle of Jupiter, the peacock of Juno, and the owl of Minerva. Whether there was any temple or sanctuary of this deity at Virunum, I do not know that we have any information; but the figure may have been imported from a distance, and only used as an ornament, without religious significance.¹

If anyone will take the trouble to examine this collection he will have realistic proof, more satisfactory than any accounts of historians, that under the Romans the inhabitants of Noricum were not "rude Carinthian boors,"

on a griffin. A coloured engraving of this subject accompanies Professor Basile's brochure, *Sull' antico edificio della Piazza Vittoria in Palermo*, Tav. III, Dettaglio del Mosaico scoperto 1869.

¹ To the passages mentioned in the *Archæological Journal*, loc. citat., add Pliny's description of the griffin, Lib. X, Cap. XLIX, Sect. 70, § 136, edit. Sillig. grypas aurita aduncitate rostri fabulosos reor; cf. VII, § 10; XXXIII, § 66; with which compare *Æschylus Prometheus Vincetus*, v. 803 edit. Dindorf (v. 828 edit. Blomfield)—

δενυστόμονας γὰρ Ζητὸς ἀκραγῆς κύνας
Γρύπας φύλαζαι,

C. O. Müller, *Archæologie der Kunst*, § 362, 1; English Translation, p. 449, Apollons ἐπιδημίαι ἐπιφάνειαι (über die Istros schrieb). Nach Delphi kehrt er von den Hyperboreern zurück . . .

Neben den Hyperboreern wohnen die Arimaspen, die, in Skytho-Phrygischem Costüm, mit dem Greifen um das Gold kämpfen. Rawlinson's note on *Herodotus*, IV, 27, Vol. III, p. 23, and woodcut, p. 24: "The only truth contained in the tale is the productiveness of the Siberian gold-region . . . and the jealous care of the natives to prevent the intrusion of strangers. . . The Greek griffin is curiously like the Persepolitan (*Ker Porter*, Vol. I, p. 672, Plate 52), and both are apparently derived from the winged lion of the Assyrians (which was the emblem of the god Nergal, or Mars." Layard's *Nineveh*, 6th ed., Vol. I, p. 65 seqq., Pl. at p. 70. Winged lion discovered; Vaux, *Handbook to the Antiquities in the British Museum*, p. 268, woodcut, p. 267. The clause loc. citat. Ἰσσηδόνες

εἰσὶ οἱ λέγοντες τοὺς μονοφθαλμοὺς ἀνθρώπους καὶ τοὺς χονσοφύλακας Γρύπας εἶναι is aptly illustrated by Rawlinson's note (9) on *Herodotus* III, 116, Vol.

II, p. 503 sq. The annual production of Russian gold mines in the Ural and Altai Chains at present amounts to between £1,000,000 and £5,000,000. See also Baehr's edition of *Herodotus*, Excursus V, Vol. II, pp. 653-655 De Gryphis, where the opinions of many learned writers are stated.

The griffin found at Magdalenenberg has been removed to the Museum in Vienna—*Guide to the Historical Collection in the Rudolfinum*, op. citat., p. 25, Plut. 3. This figure, like the one at Palermo mentioned above, has a connection with Apollo. Dr. Schneider, *Uebersicht der kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauses*, p. 84 sq., says: "Einst zu einer Statue des Apollon gehörig. Zwischen seinen ausgebreiteten Flügeln ist noch der Rest der Kithara des Gottes zu erkennen."

A passage in *Pausanias*, where he mentions griffins, is too important to be omitted, Lib. I (Attica), Cap. XXIV, §§ 5, 6: He is describing the famous chryselephantine Statue of Minerva in the Parthenon, and informs us that they were placed on each side of her helmet. This leads him to relate the tale of the griffins and Arimaspians; his account of the former corresponds with the representation of them in the monuments—like lions with the wings and beak of an eagle. *Smith's Dictionary of Greek and Roman Biography*, Vol. III, p. 250; Raoul Rochette, *Lectures on Ancient Art*, English translation, p. 176.

Compare Von Sacken und Kenner, *Das K. K. Münz- und Antiken Cabinet*, Wien, 1866, p. 307, No. 1225; Sitzender Greif, der Löwenleib, geflügelt, der Adlerkopf mit spitzen Ohren, gezaekt tem Kamme und Bocksbart; von trefflicher, charakteristischer Durchführung, 3 $\frac{1}{2}$ Z.

but that they possessed the comforts and luxuries as well as the necessities of life, and that "convenience, arts, and elegance," to quote again the same author, were not unknown to them. The objects here displayed, if considered by themselves, may seem unimportant; but taken collectively they present to us a picture of ancient civilization that should interest the studious inquirer. In the first and second compartments of this case we see a dagger (*parazonium*) and two swords (*gladii*), a fragment of a bronze vessel with a Greek inscription (ΑΡΧΙΑ), many armlets and finger-rings, brooches to fasten dresses (*fibulæ*), ornamental hair-pins, small tablets (*tesserae*) with names engraved—Bonopompo, Mandatus, Acastus¹—several bath-scrapers (*strigiles*); also remains of rouge in a vase.² The use of cosmetics by the Roman ladies is well known, and has been fully explained by Böttiger in his *Sabina*, a work which, I think, surpasses every other treatise of the kind, because it is profoundly learned and by no means heavy. For the employment of paint to beautify the complexion consult the First scene—*Phiale (bringt) die Schminke*, Vol. I., Text pp. 23–26; *ibid.*, Remarks (*Anmerkungen*), pp. 51–53 *et seq.*³

¹ A friend suggests to me, that *Bonopompo* sounds more like modern Italian than ancient Latin; it does not occur in De Vit's *Onomasticon*, appended to his edition of Forcellini's Lexicon—a most copious repository of proper names—nor have I met with it elsewhere. De Vit has an article "Mandatus," in which he refers to the following authorities: Brambach, *Corp. Inscr. Rhenanar.*, No. 713, v. 3, in museo reg. Bonnensi T · FLAIVS · MNDATVS; *Corp. Inscr. Lat.*, Vol. V, No. 3422, Verona SEX · F · POB · MANDATO; *ibid.*, Nos. 3373 and 3904. Wilmann's *Exempla Inscr. Lat.*, No. 2604, Venusæ MANDATVS · RAB · III · 7 · II. Cf. Mommsen, *Inscriptiones Regni Neapolitani Latinae*, No. 736. RAB may be expanded Rabilianus, and the marks following may mean that he obtained three victories and two crowns. This last inscription is specially important for information concerning the schools of gladiators, and Wilmanns has a commentary upon it. Acastus also occurs as a mythical personage; he was an Argonaut, and one of the Heroes who took part in the Calydonian boar-hunt; Ovid, *Metamorphoses VIII*, 305.

² *Diet. of Antiqq.*, 3rd edition, Vol. I, p. 880 *sq.*, s.v. *Fucus*, with an illustration, Female painting her face (from a Vase).

³ Panofka, *Bilder Antiken Lebens*, p. 43 *sq.*, Tafel XIX. Eine Frau auf einem Lehnstuhl, im Begriff sich zu schmincken mit dem Pinsel, den ihre Rechte nach dem Gesicht erhebt, während ihre Linke einen Spiegel hält. The same engraving appears in Böttiger's *Sabina*, Tafel IX, facing p. 3 of Part II; *Erklärung der Kupferatfeln*, p. 252 (zur fünften Szene). Xenophon, *Æconomicus* X, §§ 2, 5, the lady painted herself so as to appear whiter and redder than she really was. Cerussa (Σιμόθιον) white lead was employed in the former case; anchusa (ἄρχουσα or ἔρχουσα), alkaet or ox-tongue, and other pigments in the latter. The passage from Xenophon may remind the English reader of the line which Pope puts into the mouth of Narcissa—

"And—Betty—give this cheek a little red."

edition of his works, London 1760, Vol. III, p. 246. *Moral Essays*, Epistle I, "Of the Knowledge and Characters of Men," v. 251.

Compartments 3 to 6 contain a small spoon, bell, weights (of bronze and stone), compasses, plummet (*Senkblei*), iron pen (*stylus*) for writing on wax tablet, hook for drawing up the wick of a lamp, bronze strainer for filtering, fragment of sieve, fishing hook, row of metal mirrors, two lamps with frames for glass cylinders, tools of various kinds—scissors, knives, hammers, chisels—and comb-like instruments probably used for weaving. Some objects here show how much attention the Greeks and Romans paid to the *artistic* decoration of articles for domestic use. I refer to a bronze wire that ends in the head of a snake with quivering tongue, and to supports for furniture in the form of eagle's or animal's feet. The style is similar to the bronzes in the British Museum, or those from Her-
culaneum and Pompeii now preserved in the Museo Nazionale (formerly Borbonico) at Naples.

In Case 4, among the finds at Virunum, some of the most notable are a spoon-shaped mason's trowel, a well-formed female panther, of bronze, a small bronze altar with inscription (Mommsen, *Corp. Inscr. Lat.*, Vol. III., Part II., 4805),¹ an alabaster slab with architectural design, probably of buildings in Virunum, a rectangular copperplate found by Professor Pichler 1883, which perhaps

The eyebrows were blackened with *stibium*, *stimmi* (στίμμι), a sulphuret of antimony: Juvenal, *Sat. II*, 93,

Ille supercilium madida fuligine
tactum

Obliqua producit acu, pingitque tre-
mentes

Attollens oculos:

With tiring-pins, these spread the
sooty dye,

Arch the full brow, and tinge the
trembling eye;

Gifford's Translation.

See his note, Vol. I, pp. 61–63; and Ruperti, *Commentarius, in loco*, with foot-note No. 25, where he cites a host of authors, sacred and profane, ancient and modern, English and foreign. V. Heinrich's note *ibid.* in his edition of *Juvenal*, Vol. II, p. 107: Erklärung. Eine komische Benennung der schwarzen Schminke, . . . was aber nicht Alkohol oder Spießglas ist, sondern Beiglanz. He also cites Tertullian, *De Cultu Feminarum*, I, 2; II, 5; edit. Oehler, Vol. I, pp. 703, 720, with foot-notes. For the toilet of the ancient

Egyptians, consult Sir G. Wilkinson's *Manners and Customs*, Vol. III, p. 378 *seqq.*, especially pp. 380–383, Kohl, or Collyrium, for the eyes. Woodcut No. 411, Figures 1–7, p. 383: Boxes, or bottles, to hold the Kohl for staining the eyelids. Bodkin for applying the Kohl. *Catalogue of the Egyptian Antiquities* at Alnwick Castle, by Dr. S. Birch, pp. 98–101, Nos. 751–763, Vases and cases for holding stibium.

1

NEMNIC

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C. I. L., Vol. III. Pars posterior-Noricum, Virunum, p. 601, basis ærea exiguae molis litteris ætatis liberæ reipublicæ vel certe Augustæ scripta. At the end of this volume, with other maps by Kiepert, is Tab. IV, Rætia Noricum Pannonia; we have Regio inter Virunum et Noreiam (Neumarkt in Styria) triplici majoris tabulæ modulo ($\frac{300000}{1000}$) descripta, et Virunum cum Vicinia sextuplici majoris tabulæ modulo ($\frac{300000}{1000}$). A Supplement to this volume appeared in 1893.

refers to the worship of Epona, whose name we also see in the epigraphy of this region. The goddess, whom the classical scholar will remember as occurring in Juvenal's phrase,

"jurat
Solam Eponam et facies olida ad præsepia pictas."¹

was venerated in many countries, and especially in those famous for breeding horses. Mr. T. Hodgkins' Essay, entitled the "Pfahlgraben," gives an example from the sculptures discovered on the Teufelsmauer or *Limes Transrhenanus* and *Transdanubianus*.² Pichler has engraved the relief on this copper plate in the Bild-beilagen to his *Virunum*; it seems to have decorated the side of a casket, where a female standing between two men on horseback may be the same goddess. These figures, with snakes behind them, form the upper group. The lower exhibits more variety: A tripod, with offerings thereon, stands in the centre; at the left side one man turns towards it, while another, looking in the opposite direction, disembowels an animal hanging from a tree; at the right we see a fish, cock, and goat (?), and behind them a man with a ram's head. The whole subject is complicated and hard to interpret. The difficulty may

¹ *Sat. VIII*, v. 156 sq. Otto Jahn's edition, p. 92, gives the various readings, yponam, iponam, hiponam; and p. 298 the Scholium, v. 157 SOLAM EP. quia mulio est, qui consulitur (lect. dub. v. note). Epona dea mulionum est. Heinrich *in loco* (Epona) Schutzgeist für Esel and Pferde, überhaupt für *jumenta*.

² This Memoir is reprinted from the *Archæologia Eliana*, 1882; Plate IV is between pp. 34 and 35, full-page engraving of Epona, the tutelary deity of the stable (two altars to whom have been found in our island). . . . She sits with long draperies in a tranquil attitude, holding something in her lap. . . . Four horses are in motion behind her, two towards the right hand, and two towards the left. In Note 2, p. 34, Mr. Hodgkin quotes Tertullian (*Apologia XVI*, where he is defending the Christians from the calumny about their worship of an ass's head): "Vos tamen non negabitis et jumenta omnia et totos cantherios cum sua Epona coli a vobis." In the beginning of this chapter he says, "Somniastis caput asinum esse deum nostrum,"

and refers to Tacitus, *Hist.*, Lib. V, cc. 3, 4, and calls the historian *mendaciorum loquacissimus*:—v. Orelli's *Excursus ad lib. citat.*, C. II seqq. especially p. 327.

Oehler, instead of the usual title *Apologia*, gives *Apologeticum* (ἀπολογητικός λόγος), and in defence of the alteration, remarks, "Hanc Inscriptionem habent libri paene omnes." But some MSS. have *Apologiticum*. Salmassius, in his edition of *Tertullian De Pallio*, Notæ p. 307, cf. p. 225, mentions examples of the interchange of *i* with *e*—diatrita for διὰτριπτα, coliphia for κολήπια, and dicteria for δεικτήρια. Comp. Juvenal, *Sat. II*, v. 53,

"Luctantur paucae; comedunt coliphia paucae."

with Ruperti's explanatory note. Otto Jahn gives the various readings, colyphia, coliphia, colæphia, the first being in the *Codex Pithæanus*, together with the Scholium, athletarum cibum dicit. For the interchange of the vowels, v. "Key on the Alphabet," under the heading E.

arise from an admixture of Greek myths—perhaps those concerning Hypsipyle and the Thracian Diomedes—with some local rites and traditions of which no account has come down to us.¹

¹ We may observe, that the position of the female between horses, on the copper plate from Virunum, is similar to that of Epona in Mr. Hodgkin's engraving above-mentioned, representing a bas-relief discovered near Ehrlingen, a little Swabian town (Vicus Aurelii) in Württemberg, N.E. of Heilbronn—v. Map, *op. citat.*, between pp. 18 and 19, The Pfahlgraben, from the Bavarian Frontier to the Main. Colonel Von Cohausen, *Der Römische Grenzwall in Deutschland* . . . Mit. 52 Folio-Tafeln Abbildungen. Allgemeine Übersicht über den Lauf des Grenzwalles, p. 7; and esp. Von Loreh an der Rems bis Miltenberg am Main, p. 30. See also Atlas of Plates, Taf. I, Der Römische Grenzwall von der Donau bis zum Rhein. This map includes for comparison Die Britischen Römerwille.

Pichler thinks ("Virinum," p. 181), that in these reliefs we may see an allusion to the story of Hypsipyle, who saved her father Thoas, King of Lemnos, from a massacre of the male inhabitants, and thus incurred the hostility of the women who had murdered them. She therefore fled from the island, was taken prisoner by pirates, and sold to the Nemean king Lycurgus, who entrusted to her care his son Opheltes, also called Archemorus. Hypsipyle showing the seven heroes, who fought against Thebes, the way to a fountain, left the child, and it was killed by a dragon: *Hyginus Fabularum*, Lib. LXXIV, and Gerhard's *Vaso dall' Archemoro*, *Archäologische Zeitung*, 1849-50, 76, 76*.

Cf. *omnino* Baumeister, *Denkmäler*, Vol. I, pp. 113-116; Fig. 119 Archemoros' Tod, relief in the Palazzo Spada; Fig. 120 Archemoros' Begräbnis, great amphora from Ruvo—both large engravings intercalated in the text, and minutely described, especially the latter.

The Nemean games were instituted in honour of Archemorus (Ἀρχεμόρος), whose name signifies "Forerunner of death."

The same author proposes another explanation. The Thracian Diomedes may be represented here. He is said to have fed his mares on human flesh, to have been put to death by Hercules, and devoured by his own stud. *Æneid*,

I, 752: Nunc quales Diomedis equi. Servius has the following note: "Diomedes enim, rex Thracum, habuit equos, qui humanis carnibus vescabantur. Hos Hercules, occiso crudeli tyranno, abduxisse perhibetur." *Virgil*, edit. Burmann, Vol. II, p. 184. See Conington *in loco*, and compare *Lucretius*, V. 29, edit. Forbiger:

"Et Diomedis equi, spirantes naribus ignem,

Thraciam Bistoniasque plagas atque Ismara propter."

The cruelty of Diomedes may have given rise to the proverbial expression ἀνάγκη Διομήδεα, used to mean absolute, extreme necessity: Aristophanes, *Ecclesiastus* v. 1029 (1021), Plato, *Republica*, 493 D; see Orelli's *Onomasticum Platonium*, appended to his edition of the author in one volume, p. 1024; he refers to the Scholiast on Aristophanes *loc. citat.* and Suidas s.v. Διομήδεος ἀνάγκη.

This Diomedes must be carefully distinguished from the hero of the same name, whose exploits are celebrated by Homer in the *Iliad*, bk. V. Διομήδους ὑπιστρία, sometimes called Tydides (his patronymic); so Horace, *Carmina* I, vi, 16, Tydiden superis parem, cf. *ibid.*: xv, 28; v. Damm, *Lexicon Homericum*, Vol. II (Glasgow, 1833); s.v. Τυδεύς.

The Villa of Diomedes at Pompeii is not named after any object found therein, which can be associated with the Homeric chieftain, but from an inscription on a tomb opposite to it. See Mommsen, *Inscr. Regni Neapolitani Latine*, 1852, No. 2356, p. 121, Pompeiis ad villam Diomedis.

ARRIAE · M · F

DIOMEDES · L · SIBI · SVIS

cf. 2355. At p. 112, Pars Quinta, Campania § X, Pompeii, we have an Introduction prefixed to the inscriptions, which contains a history of the excavations, and a discriminating review of Pompeian literature. This house is one of the largest and best preserved dwellings in the town: Overbeck, *II. Viertes Capitel, Die Privatgebäude, Die Wohnhäuser*, No. 21 *Villa suburbana*, pp. 328-335, Fig. 198, facing p. 329, full page engraving, general view; Fig. 199, ground plan intercalated in the same page; p. 329, die Villa mit ihrem

The specimens of glass in this collection are particularly fine, and indicate how far the Romans had advanced in this branch of art. A green cruet with white spiral lines and a ribbed bowl deserve attention. Half-burnt human bones sufficiently indicate the purpose to which some of the vessels deposited here were applied. I am surprised to find that Baron Hauser, in a notice of the contents of this case, speaks of Thränenfläschchen, repeating the mistake which Jabornegg-Altenfels made before him. These small vials used to be called *lacrymatoria*—perhaps from a passage in the Psalms, lvi, 8, (put my tears into Thy bottle), but there is no classical authority for the Latin word, and it is now generally admitted that they held perfumes—very necessary to counteract the stench that cremation had caused.¹ But

Eingänge an der gegen die Stadt ansteigenden Gräberstrasse liegt. For its position relatively to other buildings, see Baedeker's map, *Italie Méridionale*, Route 9, p. 124. Compare Gell and Gandy, *Pompeiana*, Vol. III, p. 99, Plate II (ground plan), Street of the Tombs; Vol. IV, p. 167, Plate XX, Villa Suburbana.

At first sight, the man with an animal's head may be difficult to explain; but we need not be surprised at it, if we bear in mind that during Hadrian's reign, in consequence of his journey to Egypt, and admiration of the wonders he saw there, the worship of the deities venerated in that country spread throughout the Roman empire, his influence being universally felt, as he visited every province of his vast dominion. The great emperor was not satisfied with studying Egyptian monuments; he endeavoured to reproduce them in his villa at Tivoli, especially in the Temple of Serapis (*Σεράπιον* or *Σαράπιον*, v. Pape, *Wörterbuch der griechischen Eigennamen*) built on the model of that at Canopus. Hence it bore the name of that city, and is so called by Spartianus, *Vita Hadriani*, cap. XXVI, *locorum celeberrima nomina inscriberet, velut Lycium, Academicum, Prytanium, Canopum, Picilem, Tempe vocaret*. Posterity, I think, owes more to Hadrian, as a patron and conservator of ancient Art, than to anyone else.

Cf. omni., Winckelmann, *Histoire de l'Art*, Livre VI, chapitre VII, § 24. Des imitations d'ouvrages égyptiens, faites

par Adrien. Statues have been found at Tivoli in red granite of the earlier period, and in black marble of the later. The Museum of the Capitol and the Villa Albani possess examples of both kinds. Gregorovius, *Geschichte der römischen Kaisers Hadrian und seiner Zeit*, Part I, Chap. IX, pp. 37-44; Part II, Chap. X, Hadrian's Villa, esp. 213. G. Long, *Egyptian Antiquities*, Vol. I, p. 348. Sir H. Ellis, *Townley Gallery*, Vol. I, p. 45.

Septimius Severus also visited Egypt: Spartianus, *Vita*, Cap. XVII. *Jucundam sibi peregrinationem hanc propter religionem dei Sarapidis . . . Severus ipse postea semper ostendit.*

¹ *Führer durch das Historische Museum des Rudolfinums in Klagenfurt*, p. 31 sq. Pult 4, Abteilung 4 and 5, Zwei Thränenfläschchen, welche bei dem Leichenbrande geschmolzen sind. Similarly in the *Congrès Archéologique de France*, XLVI^e Session 1879, Les découvertes faites à Vienne depuis l'année 1841 jusqu'à ce jour; p. 23, Il a été trouvé aussi des pièces des monnaies, des clefs d'un travail curieux, des *lacrymatoires* et différents autres objets. And so the Delphin editor on Horace, *Carm. II*, vi, 23—

ibi tu calentem

Debita sparges lachryma favillam

Vatis amici

quoting Torrentius, says, "Exiguam ampullam lachrymis plenam urnæ ferali inferebant." This error has been corrected in the Catalogue of the York Museum, *op. citat.* p. 83, No. 3.—De-

other kinds of industry also are well represented here. We see numerous spindles (Spinnwirtel) found in graves and appropriately buried with diligent housewives, remains of colour that seem to have been intended for wall-paintings, stones for rubbing this colour, and others for sharpening pointed instruments.

Wall-case 6.—A female mask, rude work of red clay, wears a head-dress like that of the Egyptian Isis, and was found near three altars of the goddess; so that here, as in the monuments of our own country, we are reminded what an impression the wonders of that land had made upon the Romans, and how widely the influence of its religion had extended.¹ *Acastus* has been already mentioned; his name recurs inscribed on a cup with the following sentence:—*Accensust. dum. lucet. Bibamus. Sodales. Vita. brevis. Spes. fragilis.*²

The fourth compartment shows us not only the vegetable and animal food of the inhabitants, but also the luxuries they enjoyed. We see the refuse of their kitchens—bones of hens and other kinds of poultry, horns of deer, and teeth of the wild boar—also mussels, peri-

scription of a small vessel, of pale green glass. The use of the so-called lacrymatories was to contain unguents and liquid perfumes, poured on the funeral pile.

¹ As a proof of the worship of Egyptian deities in the Roman Empire, compare Baumeister, *Denkmäler des Klassischen Alterthums*, Vol. I, p. 761, Figure 812—Isis in Römischen Kostüm. In her right hand she holds a *sistrum* (rattle): from a photograph of a marble statue in the Vatican. Cicero expresses a strong wish to visit Egypt; at that time it had been proposed to send an embassy thither in favour of Ptolemy Auletes, which would have given the orator an opportunity of gratifying his curiosity: ad Atticum, II, v. § 1: *Cupio equidem et jam pridem cupio Alexandream reliquamque Ægyptum visere*. What Cicero failed to do, Germanicus accomplished. Tacitus, *Annals* II, 59 *proficiscitur, cognoscendæ antiquitatis*. Chap. 60, he visited Thebes, heard the vocal statue of Memnon, and penetrated as far as Syene.

² This Inscription reminds us of Herodotus, II, 78, where he informs us that after banquets, a wooden image of

a corpse was carried round, and these words were addressed to each of the guests: “Look at this, drink and be merry, for such you will be, when you die. Rawlinson’s *Translation*, Vol. I, p. 130, Note 4. The figure . . . was of a mummy in the usual form of Osiris, either standing or lying on a bier—with three woodcuts and many references. St. Paul in his First Epistle to the Corinthians, I, xv, 32. *φάγωμεν καὶ πίωμεν ἄνθρωπον γὰρ ἀποθνήσκειμεν*, quotes Isaiah, xxii, 13 Septuagint. Similar expressions occur in Luke xii, 19. Horace, *Odes* I, xi, v. 6, *vina liques et spatio brevi Spem longum reseces*; v. 8, *Carpe diem, quam minimum credula postero*. The Delphin editor, who is very superior to many of his *collaborateurs* in the same series, compares *The Book of Wisdom*, Σοφία Σαλωμών, Chap. II, vv. 6–8. See also Horace, *Odes* II, III, 13–16:

Huc vina et unguenta et ninium breves

Flores amcenæ ferre jube rosæ:

Dum res et ætas et sororum

Fila trium patiuntur atra.

Book of Wisdom, ibid. v. 8, *στεψώμεθα ῥόδων πρὶν ἢ μαραιθῇται*.

winkles and oyster-shells, heaps of the last having been found in the sewers of Virunum. The fish must have been brought from Italy, and, on account of the expensive transit across the mountains, could have been consumed only by the wealthy.¹ Even the fragments of pottery should not be passed over; they are often of good material and adorned with beautiful figures in relief. Holes were bored and the broken pieces were riveted with lead; hence it is evident that the possessors valued them, and wished to render them available for use again.²

The general arrangement of panels and blending of harmonious colours followed the style adopted for Pompeian dwelling-houses; which was also imitated in the ornamental accessories—masks, arabesques and Caryatides. Specially worthy of notice are four pieces in which Painting and Plastic Art are united—figures modelled in gypsum having been let into the picture. They consist of two Genii on a yellow and one on a red

¹ *Führer durch das Historische Museum in Klagenfurt*, p. 34 sq., Wandkasten G. 4. Stelle enthält Küchenabfälle, aus denen zu entnehmen, was die Römer hierzulande verspeisten. 5. *Unterste Stelle*.—Hier sind ebensolche Küchenreste ausgestellt, aber auch Seeschnecken und Muscheln.

The archaeologist can hardly fail to revert to the Kitchen-Middens (Kjökken-møddinger) in Denmark, which have attracted so much attention, being accumulations of shells of fish and bones of animals on which the primitive population fed. The former were the principal articles of consumption, hence these refuse-heaps are called Shell-mounds in Chap. VI of Sir John Lubbock's work, *Prehistoric Times*, as illustrated by Ancient Remains, &c., pp. 171–197, 1st edition. We may notice as a remarkable coincidence that the four species most abundant in these mounds are: the oyster, cockle, mussel, and periwinkle—*ibid.*, p. 179. This book, 2nd edition, 1869, p. 162, is cited in an Article, "Sur les animaux domestiques pendant les Temps Préhistoriques" par M. E. Dupont, Congrès International d'Anthropologie et d'Archéologie Préhistoriques, Stockholm, 1874, Tome second, p. 822. See also *Undersøgelser i geologisk-antiquarisk Retning* af G. Forchhammer, J. Steenstrup, og J. Worsaae.

² Such rivets often occur in fictile remains of Greek and Roman art. A conspicuous example is supplied by Juvenal, XIV, 308:

Dolia nudi
Non ardent Cynici: si fregeris, altera
fiet
Cras domus, aut eadem plumbo com-
missa manebit.
Sensit Alexander, testa cum vidit in
illa
Magnum habitatorem:

where the Satirist alludes to the so-called Tub of Diogenes, which was evidently an earthen vessel—

If crack'd, to-morrow he procures a new,
Or, coarsely soldering, makes the old one do.

Gifford's Translation, Vol. II, p. 177; v. Heinrich's long note on Juvenal, *loc. citat.*

Soldering with iron is called *ferruminationis* (συνκόλλησις); with lead, *plumbatura* (μολύβδωσις): Paulus, *Digest*, Lib. VI, Tit. I, Cap. 23, § 5, *Corpus Juris Civilis*, edit. Beck, Vol. I, p. 134, Lipsiæ, 1829. Pliny, *Nat. Hist.*, XXXVI, xxiv, § 58, has *malthare* = *solidare*, to cement, and *maltha*. "E calce fit recenti . . . quæ res omnium tenacissima et duritiam lapidis antecedit."

ground, and a small white fish on a green colour, intended, I suppose, to represent water; but some members of the bodies—a foot or an arm—were only painted. It would seem that an outline of the whole was drawn on the wall, then those parts that should be made particularly prominent were hollowed out, and the plaster figures inserted. The British Museum possesses only two examples of this kind, which are exhibited in the part of the Etruscan Saloon next to the Gold Ornament Room. One is a Gorgon's mask in relief on a Pompeian painting of female figures in arabesque; the other is a head of a child above, also in relief, with a festoon underneath; below is a woman carrying a dish, with a vase upon it.¹

He who would study such a collection as I have endeavoured to describe will be able, in some measure at least, to understand the social life of the Ancients; he will learn much that the mere reader of grammars, dictionaries and College text-books, does not know at all, or knows very imperfectly. Not that we should run into the opposite extreme, and attempt to substitute realism for literature, because philology and archæology ought to advance *pari passu*. Antiquaries have often mistaken the meaning of the classical writers, and failed to make discoveries because they have not trodden the path which Strabo, Pliny, and Pausanias had pointed out. On the other hand, verbal critics have dwelt too exclusively on forms of expression, and neglected both the ideas that underlie them, and the monuments throwing light on those ideas.

¹ The former object was found at Pompeii in 1753 by Thomas Hollis, and presented by him in 1757; the latter has been retouched throughout; it was presented by the Earl of Exeter in 1771. The effect is much the same as that produced in the manner described by a writer in the *Encyclopædia Britannica*, 9th edition, Vol. XIV, p. 676, Art. "Linoleum." Mr. Walton, the original patentee of linoleum, has adapted a preparation of oxidized oil and cork or other thickening material, embossed with patterns, for wall decorations under the name of Linerusta-Walton. The attendants in the British Museum will readily show the antiques above-mentioned to any visitor

who has the curiosity to inquire about them.

Such a combination reminds me of a process "which consists in laying upon the general body of the vase some clay in a very viscons state, technically called *barbotine*, either with a pipe or a little spatula in the form of a spoon," so that the contours of plants or animals stand out in relief. See my Paper on "Autun," *Archæological Journal*, Vol. XL, p. 46 sq., Note 3, containing references to Brongniart; Dr. Birch on *Ancient Pottery*, and the *Mémoires de la Société Éduenne*, tome troisième, 1874. Many specimens may be seen in the Museum at Cologne, as well as in French collec-

I will now say a few words by way of explanation of the photos. and lithographs which I exhibit. They are taken from Jabornegg-Altenfels' *Kärnten's Römische Alterthümer*, and the following numbers are the same as those given by him:—

CIX. Four marble statues, two of them being duplicates; hence there are only three photos. No. 1, Hermaphrodite, with the distinctive organs of both sexes. A mantle extends behind the figure—part of it rests on a quadrangular column, while one end hangs down from the left shoulder.¹ No. 2, a male, headless, but a hollow is visible between the shoulders in which the head had been inserted. The body leans against the trunk of a tree, reaching to the middle of the left thigh. A mantle, held by the left hand, is fastened by a fibula on the right shoulder. Nos. 3 and 4 exactly alike. All the drapery is wrapped round the left shoulder, and the left hand holds some object of which so small a fragment remains that it cannot now be identified. These statues were all found at Zollfeld; they are well executed, and a comparison with others of inferior workmanship from the same locality seems to show that they served as models for imitation.

¹ The hermaphrodite was a favourite subject with the ancient sculptors and engravers: that of Polyelos seems to have been the most famous; Pliny, *Nat. Hist.*, XXXIV, viii, 19, § 80 (Ex ære) Hermaphroditum nobilem fecit: Sillig, *Catalogus Artificum*, p. 360. The original was in bronze, and the marble statues now existing in the galleries of Florence and the Louvre, according to a frequent practice, were probably copied from it. For works of art representing the sexes united in a single person, see Müller, *Handbuch der Archäologie* (Cycle of Eros), Sect. 392. § 2, Remark 2.—English Translation—*Ancient Art and its Remains*—p. 514 sq.; *Denkmäler*, Atlas of Plates accompanying this work, Text pp. 24–26, Part II, Plate lvi, Nos. 708–721. Clarac, *Musée de Sculpture*, Texte, tome IV, pp. 179–183. Planches, tome III, 303; IV, 666–672. Sometimes the Hermaphrodite is recumbent, e.g. in the Louvre, on a mattress. Tassie, *Descriptive Catalogue of Engraved Gems*, Vol. I, p. 179, Nos. 2507–*1520; Vol. II, Pl. xxxi; Salmacis, Vol. I, Nos. 2521,

2522. But Gori is a better authority for this kind of illustration: *Museum Florentinum*, Vol. I, p. 158, Tab. LXXXII, Nos. IV, V, “in duabus gemmis elegantissimis . . . Cupido cum flabello ad corpus (Hermaphroditi) refrigerandum, ventum agit, vel muscas abigit”; cf. *flabellifera*, Plautus, *Trinummus*, II, i, 22 (30); Martial, III, 82:

Et æstuanti tenne ventilat frigus
Supina prasino concubina flabello.

See Gori's notes, *loc. citat.* Böttiger, *Sabina Achte Szene*, Vol. II, p. 191 (Anmerkungen 2), p. 213; and *Beilage zur Achten Szene*, *Das antike Fächer-schränkehen*, pp. 220–237, to which is prefixed Tafel XIII, explained p. 257. Daremberg et Saglio, *Dictionnaire des Antiquités Grecques et Romaines*, Dix-neuvième Fascicule; s.v. *Flabellum*, pp. 1149–1152, Figs. 3064–3078, esp. 3076—Éventail à long manche; p. 1149. terra cotta figurines found at Tanagra, dating chiefly from the second and third centuries B.C.; some of them have fans in their hands.

CXI. The Genius of Grief (Trauergenius). Near it were found skulls, a skeleton, and one of the so-called lacrymatoria; the statue, therefore, was appropriately placed in a burial-ground. The figure had originally small wings, of which one still exists, and there are bracelets on the upper arms¹; the left hand holds a wreath, probably for sepulchral ornament. In the same photo. is a small boy enveloped in a mantle, said to represent Sleep; but why this condition should be so personified I am unable to conjecture.

CCXLI. Bust of white marble, life-size; perhaps a Roman Emperor. The short beard reminds me of Hadrian, but the somewhat sullen countenance wants the intellectual expression which characterizes the portraits of that accomplished sovereign.²

CCCLXIX. Statue found in the St. Veiter suburb of Klagenfurt about 1760, and now placed in a garden. Only the upper part remains—from the head to the thighs; the left arm, disproportionately thin, rests on a shield. Medusa's head on the breast is the only ornament of the cuirass,³ but on the coverings of the thighs we see several

¹ *Armillæ* are usually mentioned as ornaments of women, so Festus, edit. C. O. Müller, p. 333, *Spinther vocabatur armillæ genus, quod mulieres antiquæ gere-re solebant brachio summo sinistro*; accordingly we find them on Hermaphrodites, because they were effeminate. Gori, *loc. citat.* brachia, armillis ornata, quas in luctu tantum abjieiebant mulieres. When the bracelets were placed on the upper arm they were called *περιβραχιώνα* (*brachialia*), when on the wrist *περικάρπια*. Often they took the form of a serpent (*ὄφης*), as they are made in the present day; this appears on the statue of the sleeping Ariadne in the Vatican; hence it was wrongly called Cleopatra, the bracelet being mistaken for the asp with which she is said to have poisoned herself: Baumeister, s.v. *Armbänder*, Vol. I, p. 129 sq., Figs. 136, 137; also p. 125, Fig. 130. *Armillæ* were conferred on Roman soldiers as a mark of honour: Smith's *Dict. of Antiq.*, third edition, Vol. I, p. 191, s.v. We have a good example in the monument of Caelius above-mentioned; Lindenschmit, *Die Alterthümer unserer Heidenischen Vorzeit*. Sechstes Heft, Tafel V, Römische Sculpturen. Ein

Siebentel d. Nat. Grösse. Immediately under the neck two great armlets are suspended by ribands in front of the chest.

² Admiral Smyth, *Descriptive Catalogue of a Cabinet of Roman Imperial Large Brass Medals*, p. 98, No. CXLVIII: the laurelled head of Hadrian, with a handsome and intelligent countenance. Cohen, *Médailles Impériales*, tome II, p. 96, Pl. IV; p. 144, Pl. V; p. 192, Pl. VI.

³ A fine statue of Hadrian, in the attitude of addressing his army, shows the Gorgon's head on the upper part of the richly ornamented cuirass: Vaux, *Handbook to the Antiquities in the Brit. Mus.*, p. 229; full page woodcut, p. 230; Sir H. Ellis, *Townley Gallery*, Vol. I, p. 257, with a reference to Servius on Virgil, *Æneid VIII*, 435: sicut in antiquis Imperatorum statuvis videmus.

Ægidaque horrifera, turbatæ Palladis arma,

* * * ipsamque in pectore divæ Gorgona, desecto vertentem lumina collo.

Martial, *Epigrams*, VI, x, 11—posita mihi Gorgone Pallas. Daremberg et

minute human figures. A *cippus* serves as a pedestal, and the labours of Hercules, one on each of the four sides, lead to the supposition that the Emperor Maximianus Herculeus is here represented.¹

CVIII, Pls. 1 and 2. Three Mithras-stones, which may have been set up in the Mithræum at Virunum, mentioned in *Inscription XII*, p. 23—SOLI · INVICTO · MYTHR . . . TEM · VETVSTATE · CONL.: Soli invicto Mythræ . . . templum vetustate conlapsum. (Comp. *Inscription XIII*, where nearly the same words occur.) There can be no question about the meaning of these sculptures; it is abundantly proved by the radiated head of the Sun-god four times repeated, the Phrygian bonnet on the head of many figures, the trousers (*ἀναξυρίδες*) which they wear, and an archer shooting an arrow from a bow—all these details belong to Oriental customs and worship.²

CXXXIX, Pl. 3. Wolf and Twins. Romulus and Remus sucking the teats of the she-wolf, which turns back her head towards them; *tereti cervice reflexam*, Virgil *Æneid*, VIII, 633. This group is seen so frequently that we may regard it as an emblem of sovereignty; and, like our

Saglio, *Dict. Antiqq. Gr. et Rom. Fascicule*, XXI, p. 1628, Fig. 3644, Méduse Rondanini (à Munieli) (*Glyptothek, Niobiden-Saal*, Baedeker *Süd-Deutschland und Österreich*, p. 133, edit. 1876). Darenberg and Saglio's article—"Gorgones," pp. 1615-1629, Figs. 3632-3645—is a very elaborate monograph, with many foot-notes. Note 9, p. 1628: C'est aussi le type moyen à grandes ailes relevées qui orne la cuirasse du buste d'Hadrientrouvé à Antium. See Duruy, *Histoire des Romains*, Vol. V, p. 31; woodcut, Musée du Capitole. Hadrian's bust in the Brit. Mus. is described by Taylor Combe, *Ancient Marbles*, l'art III, Pl. XV, "The head is not ornamented with any diadem, and the breast is quite uncovered"; hence the face of Medusa cannot find place here. Visconti says, "Con tutto il petto nudo, e di stile grande e sublime," cited in the note.

¹ *Gibbon*, Chap. XIII (edit. Smith, Vol. II, p. 67), to whom I owe some of the following references:—*Panegyrici Veteres*, edit. Delphin, *Claudii Mamertini Paneg. Maximiano Augusto dictus*, II,

pp. 110-123, in which the Emperor is flattered extravagantly, Chaps. III, X, XIV—v. esp. Chap. I, "Sicut hodieque (al hodie quoque) testatur Herculis ara maxima, et Herculei sacri custos familia Pinaria principem illum tui generis ac nominis Palantea mœnia addidisse (al. adidisse) vietorem," &c. See also *Paneg. VI*, Ezekiel Spanheim, *de Præstantia et Usu Numismatum*, Dissertatio XII, xii, § 4, pp. 494-497, with an engraving of a medallion; legend: MONETA · IOVI · ET · HERCVLI · AVGG, Jovis et Herculis, utriusque nudi, cum solitis eorum insignibus. Monete vero in medio, cum bilance et cornucopiæ, prostant effigies. Laetantius (?), *De Mortibus Persecutorum*, Cap. LII. Cohen, *Méd. Imp.*, t. V, Texte, pp. 425-500, Planches XII, XIII; XII, No. 4, BR. M. is the same as that quoted from Spanheim.

² My Paper on the "Roman Antiquities of the Middle Rhine," *Archæol. Journ.*, Vol. XLVII, pp. 378-380, with photos. of the Front and Back of the Mithraic Tablet at Wiesbaden.

royal arms, it was probably placed in some conspicuous part of public buildings. A similar example appears among the monuments of Avenches, and a notice of it has been published by the local antiquaries.¹

CXL, Pl. 3. Genius of Grief. Compare photo. *supra* No. CXI. A winged youth, who holds a wreath in his right hand, and leans upon an inverted torch which is being extinguished.

CXLI, Pl. 4. Vine foliage on two stems grows out of a vase with two handles (*diota*) terminating in rosettes at the top. On each side a leopard, sitting on his hind quarters, holds in his fore-paws a drinking horn (*rhyton*). Large clusters of grapes hang down from branches on which two birds are perched; there are three others—of whom one drinks from the vase, another swims in it, and a third stands on the edge.² Figures of animals, in two rows, decorate the exterior. The composition is harmonious, and the execution indicates the best period of Roman occupation.

CXLVI, Pl. 4. Bust of man, winged, whose head is covered with a cloth that leaves the face open; he places his left hand on his breast. It is included by Jabornegg in the *Römische Alterthümer*, but it seems to me rather mediæval than classical. The treatment of the countenance reminds me of St. Paul's words: "We all with open face beholding as in a glass the glory of the Lord," where the Revised Version has "unveiled."³

¹ My Paper on the "Roman Antiquities of Switzerland," *Archæol. Journ.*, Vol. XLII, p. 199 *sq.*, text and notes. I think a good illustration will be found in the *Mittheilungen der Antiquarischen Gesellschaft in Zürich*, Band XVI.

² The subject may remind us of the celebrated Doves of Sosus, so often imitated in the round; but the original was a mosaic picture made of clay tesserae. Pliny, *Nat. Hist.*, XXXVI, xxv, 60, has described it, "Mirabilis ibi columba bibens, et aquam umbra capitis infuscans. Apricantur aliæ scabentes sese in canthari labro." A copy found in Hadrian's Villa is to be seen in the Museum of the Capitol (Rome), Upper floor, Hall of the Doves. C. O. Müller, *Handbuch der Archäologie*, §163, Remark 6. Smith's *Dictionary of Biography*, s.v. Sosus. The name also appears as that of a medallist on the

coins of Histiea, afterwards Oreus in Eubœa; but it is not mentioned by Leake in his *Numismata Hellenica*.

Birds occur frequently among the decorations of Christian monuments, esp. the dove with the olive-branch. It would be easy to multiply examples, but the following may suffice for our present purpose: a peacock is conspicuous in the foliated scroll-work that adorns the chair of Maximianus mentioned above. Raphael Fabretti, *Inscriptionum Antiquarum . . . Explicatio*, 1699, p. 574, Cap. VIII, No. LIX, *Avicula e poculo bibens. Cf. p. 378, No. XXXI, D-K, "Aviculæ istæ suis hinc inde rogis impositæ, quid aliud quam Phœnicem, notissimum æternitatis symbolum, significare possunt?"*

³ Second Epistle to the Corinthians, iii, 18, ἀνακαλυμμένῳ προσώπῳ τῇ δόξαν Κυρίου κατοπτριζόμενοι.

CXLIV, Pl. V. Covered carriage drawn by two horses (*carpentum*), with garlands on their necks. A man seated within holds a disc, which looks like a *patera*. The side panel is ornamented with snakes and rosettes. The *carpentum* was used by Roman ladies, but not exclusively by them; and we see it on a medal of Caligula.¹

CXLIII, Pl. V. A young man stands in a car drawn by two horses galloping, guides them with his right hand, and holds a spear in his left; behind him on a small pedestal stands a man carrying a shield; a third man, tied by his feet to the car, is dragged along the ground. Over the horses a winged genius hovers with a palm-branch in his right hand, and a wreath in his left. Comp. Victory in the Syracusan Medallion. The subject is evidently Achilles dragging the dead body of Hector to the Grecian camp.²

CCCLXXXVII, Pl. VIII. Bull with head lifted up and woman raising her hand to her head. There is probably some allusion here to the Mithras or Dolichenus cult, in which the bull plays a prominent part. See Desjardin's *Musée National Hongrois*.³

¹ This medal was struck by the Emperor in honour of his mother, after her decease. Cohen, *Méd. Imp.*, I, Pl. VIII, facing p. 137: Agrippine mère G.B., No. 1. *Rev.*, S. P. Q. R. MEMORIAE AGRIPPINAE. Eckhel, *Doct. Num. Vet.*, Vol. VI, p. 213: "Thensa a binis mulis tracta." The *carpentum* was a two-wheeled carriage with an arched covering over it (*curvus arcuatus*); that of Agrippina had painting or carving on the panels, and in this respect resembled the sculpture at Maria Saal. Suetonius, *Caligula*, Chap. XV, *carpentum*, quo in pompa traduceretur. Propertius, V, viii, 23, where he is speaking of Cynthia's journey to Lanuvium, uses the word *serica* as an epithet of this vehicle, probably with reference to the silk curtains that composed the awning overhead. *Livy*, V 25, *carpentis festo profestoque uterentur* (matronæ). Daremberg and Saglio, Vol. I, Part 2, Figs. 1194-96. Böttiger, *Sabina*, Vol. II, p. 212, Note 4, on the words Die Prozession beginnt, p. 189: Ammianus Marcellinus, XIV, vi, 16. In this chapter, besides *carpentum*, *basterna* and *carrucha* occur. The former is a rare word, and means a sedan-chair or litter carried by two

mules harnessed to shafts, one before and the other behind: v. Rich, *Companion to the Latin Dictionary*, s.v. with illustration, §9, *carruchis solito altioribus*; § 16, *quos imitatie matronæ complures opertis capitibus et basternis per latera civitatis cuncta discurrunt*. Micali, *L'Italia Avanti il Dominio dei Romani*, tav. 27. *Descrizione delle Tavole in Rame*, p. ix. *Urna in alabastro nel museo di Volterra*, Vedi Tom. II, pag. 104, 105.

² Homer, *Iliad* XXII, 398-400—

ἐκ δίφρου δ' ἔδθησε, κάρη δ' ἔλκεσθαι
ἔασεν.
ἐς δίφρον δ' ἀναβάς, ἀνά τε κλυτὰ
τεύχε' αἶρας,
μᾶστιζεν δ' ἔλααν, τὼ δ' οὐκ ἄκοντε
πέτεσθην.

Virgil, *Æneid*, I, 483—

Ter circum Iliacos raptaverat Hectora
muros.

³ Desjardins, *Monuments Épigraphiques du Musée National Hongrois*, p. 10 sq., § 3, Jupiter Dolichenus, No. 28A et 28B, Pl. V et VI. My Paper on "Antiquities at Buda-Pest," *Archæol. Journ.*, Vol. L., p. 213, Jupiter standing on the back of a bull; v. ink-photo facing p. 214.

CCXCVIII, Pl. VIII. Pediment with spread eagle in centre (ᾰέτωμα), on each side circular niches containing the radiated head of the Sun, and the Moon's head with crescent above it. The pediment is supported by two fluted Corinthian columns, and between them we see Jupiter Dolichenus, holding a two-edged battle-axe (*bipennis*), standing on a bull; and Juno (Dea Syria) holding a wreath, standing on a roe. This group resembles that in Face B. of the pyramidal monument described in my paper on Buda-Pest.¹ We can easily account for the diffusion of the worship of Mithras and Jupiter Dolichenus in Europe. The old religions of Greece and Rome had lost their hold on the popular mind, and were even derided; on the other hand, communication with the East developed rapidly under the Empire, partly from commercial intercourse, partly from the number of legions stationed in Syria, which from time to time were moved westwards as occasion required.

CCCCXXI, Pl. XIII. In the upper part of the stone we read the following inscription:—

SYR · VALERIAN · EVTYCHES · ALB · MA.² . .

Below it, on the spectator's right, a man wearing a laurel crown, with a quiver on his back, holds a bow in his left hand, and stretches his right towards an altar, bearing in front the words NEMESI · AVG. · Towards the left side

¹ *Archæol. Journ.*, Vol. I., p. 215.

² Such is the interpretation proposed by Heinrich Hermann, *Domkapitular in Klagenfurt*: Jabornegg-Altenfels, p. 191. Another, which seems far more plausible, is given by Hirschfeld in *Corp. Inscr. Lat.*, Vol. III, Pt. 2. Teurnia (St. Peter im Holz), p. 593, No. 473S. He reads the Inscription thus:—

SYRASC · VALERIAN · EVTYCHES ·
ALB · MA

and explains the subject as follows: "Diana cum phœtare sinistra arcum tenens, dextra in ara sacrificans. Tres venatores vel gladiatores Syracus(?) Valerianus Eutyches, servi Albii Maximi . . . votum solvunt Nemesi Augustæ." Comp. No. 4876—L. ALBIO TELESPORO . . S · ALB · MAX s(ervis) Alb(i) Max(im)i, where other slaves of the same master are mentioned.

The tessellated pavement at Nennig (on the line of railway between Trèves and Thionville) shows two examples of men using whips in their contest with the bear: *Die Römische Villa zu Nennig und ihr Mosaik erläutert von Domkapitular Von Wilmowsky*, coloured plates Nos. 5 and 8, folio, Part I, Text, p. 6 sq. No. 5, men fighting with a bear; their accoutrements resemble those in the Carinthian relief; der Kampf der Thiere mit Venatoren. Der Bär mit drei Fechttern. Eine ziemlich lange Peitsche und ein schmales, den linken Arm bedeckendes Schildchen. Text, p. 7, Pl. No. 8, Fechter mit Stab und Peitsche, Part II, Erklärung der Bildtafeln des Mosaiks der Römischen Villa zu Nennig. Tafel III and V. In this admirable work the details of the figures are carefully explained and elucidated with appropriate citations.

of the stone, a man with a shield in his left hand and a whip in his right urges a bear to attack a man, who is fighting with the same weapon against the animal, and has two cranes perched behind him on his girdle. A fourth man, also armed with a whip and shield, stands at the extreme left of the monument ; he is similarly equipped. It has been conjectured that the Inscription refers to the Syrian legions that served in the expedition of the Emperor Valerian against the Persians, A.D. 258. The letters ALB · MA. perhaps stand for Albinus Maximus.

I regret that I have not done justice to an interesting theme which is at once old and new and difficult—old because it relates to a people and period that have long since passed away ; new because it has not been previously treated by our fellow-countrymen ; and difficult for me because nearly all the recent authorities have written in a language with which I am but imperfectly acquainted. And now that I find myself less able to undertake long journeys and fatiguing investigations, I may perhaps be allowed to express a hope that younger and more vigorous antiquaries, profiting by our labours and correcting our mistakes, will prosecute their researches with renewed ardour, and attain more important results. So may they hand down to others the torch of scientific inquiry, to be carried in turn by future generations, still burning and shining amid the dark recesses of the past !

CARINTHIA.

APPENDIX.

In attempting to explain a human figure with an animal's head, like an *Egyptian* deity, which occurs on a copper plate found at Virunum, I have made some remarks on the frequency with which we find in various parts of the Roman Empire monuments relating to the superstitions of that country. Two Inscriptions in our own country bear witness to this cult. *C. I. L.*, Vol. VII.; *Inscriptiones Britannicæ Latine*, edit. Hübner, No. 240, Eburaci reperta anno 1770.

DEO · SANCTO
SERAPI
TEMPLVM. ASO
LO FECIT
CL. HIERONY
MIANVS. LEG
LEG. VI. VIC.

See p. 30, No. 10, of a *Descriptive Account of the Antiquities in the Grounds and in the Museum of the Yorkshire Philosophical Society*, by the Rev. Charles Wellbeloved, fifth edition, 1869. This publication is a *Catalogue Raisonné* which has been very carefully compiled.

Ibid., No. 298, IOVI · SERAPI, found at Kirkby Thore, Westmoreland.

Egyptian Symbolism found expression by combining the heads of birds and beasts with human bodies. Lübke, *Grundriss der Kunstgeschichte*, Vol. I, p. 30 *sq.*: "Die bildende Kunst der Ägypter. Um die verschiedenen Götter des Landes anzuzeigen, greift man zu äusserlich symbolisirenden Mitteln, setzt den menschlich gestalteten Göttern die Köpfe der Thiere auf, welche zugleich zur hieroglyphischen Bezeichnung ihrer Namen dienten. So erhält Thot den Kopf des Ibis, Rhe den des Sperbers, Anubis wird hundsköpfig, Ammon widderköpfig dargestellt; von den Göttinnen trägt Hathor den Kopf der Kuh, Neith den der Löwin," fig. 22. Vanx, *Handbook to the Antiquities in the British Museum*, pp. 348-365, and woodcut, p. 352; for Anubis, see p. 362.

Æneid, VIII, 698: "Omnigenûmque deûm monstra et latrator Anubis."

Virgil is here describing the battle of Actium portrayed on the shield that Vulcan made for Æneas. The passage is imitated by Propertius, *Elegies*, III (edit. Jacob, IV), xi, 41: "Ausa Jovi nostro latrantem opponere Anubim."

One of the most important passages for funereal rites amongst the Romans will be found in Tibullus, *Elegies*, Book III (of which,

however, the authenticity is doubtful), II, vv 9-26. A distinct allusion to perfumes occurs, v 23 sq.:

"Illic quas mittit dives Panchaia merces
Eoique Arabes, pinguis et Assyria."

See Dissen's *Commentary*, Vol. II, p. 329: "Illic in sepulchro (auf dem Grabe) fundantur, effundantur odores pretiosi. . . Panchaia thuris et myrrhæ ferax aliorumque aromatum odoriferorum."

Compare Lucan, *Pharsalia*, Lib. VIII, vv 729-737, relating to the death of Pompey the Great. Martial, *Epigrams*, X, 97:

"Dum levis arsura struitur Libitina papyro,
Dum myrrham et casiam flebilis uxor emit ;"

Tacitus, *Annals*, Lib. III, c. 2: "Ubi colonias transgrederentur, atrata plebes, trabeati equites pro opibus loci vestem odores aliaque funerum sollempnia cremabant." In chapters 1 and 2 the historian describes the landing of Agrippina at Brundisium, and the procession in which the ashes of Germanicus were carried to Rome.

Lavish expenditure at funerals was forbidden by the Twelve Tables: Cicero, *de Legibus*, Lib. II, Cap. 24, § 60, NE SVMP TVOSA RESPERSIO. Smith's *Latin Dictionary* translates the last word, "a sprinkling of the funeral pile with wine," but this rendering is inaccurate; v. Davies's note, loc. citat., "rogns vino vel murrhata potione respersi solebat," and the *Commentary of Turnebus* (reprinted by Davies, p. 379, in his edition op. citat.), who refers to passages in *Pliny* and *Festus*. Forcellini s.v. explains correctly—"infusio unguentorum et vini in rogam."

Another extract from the Twelve Tables in the same chapter of Cicero *de Legibus* seems to indicate that the ancient Romans had anticipated the processes of modern American dentistry. A clause in the Code provides impunity for those who interred or burnt a dead body in which the gold remained that had been used to connect the teeth. QVOI AVRO DENTES VINCTI ESCVNT; AST IM CVM ILLO SEPELIRE, VREREVE SE FRAVDE ESTO. Here the archaisms should be noticed: *Quoi* is the old form of *cui*; it occurs in *Plautus*, *Lucretius*, *Catullus*, and in *Cicero*, *Epistles to Atticus* XIII, 42, as a various reading—*quoi iter instet*—and even in the Augustan Age; probably in *Virgil*, *Ecloques* IV, fin.—*quoi non risere parentes*—also in *Tibullus* and *Propertius*. Similarly we have *quoipiam* for *cuipiam*. Cicero pro Fonteio, *Fragmenta*, II., cap. 3; v. Orelli's note on, I, I, where many peculiarities are mentioned. The Vatican Palimpsest of the *Oration* was collated by Faernus, and afterwards more carefully by Niebuhr. QVOIEI is found in an Inscription on the monument of the Scipios outside the Porta Capena; Orelli's *Collection*, Vol. I, p. 150, No. 555, QVOIEI VITA DEFECIT. *Escunt*=*erunt*; so we have *escit*=*erit* XII. *Tabb. apud Gellium*, Noct. Att., XX, 1; *Lucretius*, I, 620 (613, edit. Creech):

"Ergo rerum inter summam minumamque quid escit?"

v. the notes of Wakefield and Forbiger. Compare Professor Key, *Fragmentary Lat. Dict.*, p. 574, s.v. Sum, § 50, *escit*, a very old form, a present used also as a future. It should be borne in mind that this Code was enacted B.C. 451-450, about 60 years before Rome was

taken by the Gauls. For R convertible with S, v. *Key on the Alphabet*, R, § 4, p. 91 sq.

Ast is an ancient form of *At*. *Key, Dict. citat.*, s.v. *at* fin., § 18, *ast* is limited to old writings, Cicero's *Letters and Poets*. *Im* = *eum* (compare English *him*); Macrobin., *Saturnalia*, Lib. I, Cap. IV, quotes from the XII Tabb., SEL. NOX. FVRTVM. FACTVM. ESIT. SEL. IM. OCCISIT. IOVRE. CAISVS. ESTO., v. *note* of Ursinus, Davies's edit. *De Legibus*, p. 172. In *Lucretius* III, 877, "at quoniam mors eximit *im* prohibetque" is a conjecture of Lambinus adopted by Creech; but the true reading, restored by Turnetius and later editors, is, "id quoniam mors eximit esseque prohibet," which has Manuscript authority, and satisfies the requirements of both sense and metre, so that guessing was unnecessary. The mistake arose from not perceiving that *prohibet* is here a dissyllable. We also have *em* for *eum*; Gellius *loc. citat.*, Forcellini, s.v., Roby, *Latin Grammar*, Book II, Chap. vii, p. 129, 4th edition.

Se = *sine*. *Se* in old writers is used as a preposition with the ablative, and signifies separation or without; *Key, Latin Grammar*, § 1369. *Se* or *sed* in comparison signifies, with verbs, separation; with adjectives, absence, *ibid.*, § 1370. *Sed* is another form of *se*, aside, § 815, *note*; compare § 834 *note*, related to English *sund-er*, German *sund-ern*.

Some early editions, of the fifteenth and sixteenth centuries, read *juncti* (joined) instead of *vincti* (bound); but the latter seems more appropriate and expressive. *Celsus*, VII, xii, § 1, p. 403, edit. Targa: "At si ex ietu vel alio casu aliqui labant dentes, auro eum iis, qui bene haerent, vinciendi sunt." The following Latin words signify an instrument for extracting teeth—*forceps* and *forpex*, which are convertible terms (*Celsus, loc. citat.*, *Dictionary of Antiquities*, 3rd edition, with illustrations), and appear to be connected with *foris*, a door, denoting the opening made to grasp the object. Donaldson's *Varronianus*, p. 297, who compares *forpex* "a pair of curling tongs" from pec-to, but (?). Some suppose *forceps* to be akin to Greek *θήρυς*, *θήρος*; Latin *formus*, *fornus*, *fornax*. *Forpex* may be another form of *forpex* by the interchange of P with F, which is common. See Lewis and Short's *Latin Dictionary*: *Dentarpa*, Varro *apud Nonium*, c. II, n. 237: "bipensiles forcipes dentarpa." *Dentiducum*, *ὀδονταγωγόν* corresponds with our phrase "drawing teeth."

Pollux, *Onomasticon*, edit. Dindorf, Lib. IV, § 181, gives a list of surgical instruments: *Καὶ ἔργαλεια μὲν ἱατρῶν σμίλη, ψάλλis, τομήis, ὑπογραφίis, ὠτογλήφis, μήλη* (probe, catheter, *specillum*), *βελόνη, ξυστήρ, ὀδοντοξύστις, ὀδοντάγρα, ἐνέειδιον* (read *ἐνέεισιον*, a syringe), *καὶ μιλᾶσαι, τὸ τήν μήλην καθέναι*. We have among them one for cleaning, another for extracting, teeth.

Again, we find *arctim cum illo* as a variant; this probably was substituted for *ast im cum illo* by some ignorant transcriber who did not understand the acc. *im* for *eum*. *Arctim* is an uncommon form of the adverb *arcte*, which some read in Cicero, *Epistles to Atticus*, XII, 44, instead of *Carteia* (olim *Tartessus*, Tarshish?), a town in Bætica, to which Cneius Pompeius fled after the battle of Munda. *Arctim* would be said of a close blockade: v. the *note* of Bosius in the Variorum edition of *Grævius*.

Consult also Wordsworth, *Fragments and Specimens of Early Latin*.

Part III, Sectio Prima; *Monumenta Antiqua*. Cap. II; *Legis Duodecim Tabularum reliquie quæ extant omnes*, pp. 254-265; *Notes*, pp. 502-5; *IM. EM.*, p. 102; *QVOI*, p. 103; *ESCIT*, p. 511; *dentes*, p. 537. Egyptian mummies of early date are said to have been found with false teeth in them joined with gold. Table X, *Jus Sacrum, funeral rites*, pp. 533-537. Friedrich Neue, *Formenlehre der Lateinischen Sprache*, 1892, Vol. II, p. 375 *seqq.*, Pronomina demonstrativa (?) *is, ea, id; em, im* Accusative Singular, Vol. II, p. 380, § 193; *ibid.*, *quis* oder *qui, quæ, quid* oder *quod*; Dat. Sing. *cui, quoi, quoe, quoei, qui*, p. 453, § 228; v. Index (*Register*.)

I have already noticed the following Inscription in the Klagenfurt Museum: "Acastus. Aco . . . ite. Accensust. dum. lucet. Bibamus. Sodales. Vita. brevis. Spes. fragilis." Our own literature supplies a better illustration than those given above, containing, as it does, a nobler sentiment, clothed in felicitous diction. Dr. Doddridge wrote some lines on his family motto, *Dum vivimus, vivamus*, which are the best specimen of the serious Epigram in the English language:

Live while you live, the *epicure* would say,
And seize the pleasures of the present day.
Live while you live, the sacred *preacher* cries,
And give to God each moment as it flies.
Lord, in my views let both united be;
I live in pleasure when I live to Thee.

In addition to the authorities for the shell-mounds above mentioned, compare The International Scientific Series: *Man before Metals*, by N. Joly, with 148 illustrations, 3rd edition, 1883, chap. iv.; *The Peat Mosses* and the *Kitchen Middens*, especially pp. 98-104. It should be observed that all the rubbish-heaps that have been excavated are situated near the shores of the Baltic. Till a recent period these mounds were supposed to be places of burial, and are so described in the *Guide to Northern Archaeology* by the Royal Society of Northern Antiquaries of Copenhagen, edited for English readers by the Earl of Ellesmere (London, 1848). *Murray's Handbook for Denmark* will give useful information as to the best mode of reaching these prehistoric remains at Soläger, Havelse and Boserup in Sealand; at Meilgaard, and near Hadsund ferry on the Mariager fjord in Jutland; pp. 70, 71, 75, 90, 92 of the 4th edition, 1875. However, since that date I presume that the development of the railway system has given the explorer increased facilities for pursuing his investigations. This guide book is accompanied by an excellent map, on a sufficiently large scale.

One of the most important passages in ancient writers that relate to primeval man is Lucretius, V 1284-1287:

"Et, flamma atque ignes postquam sunt cognita primum,
Posterior ferri vis est aerisque reperta;
Et prior æris erat, quam ferri, cognitus usus;
Quo facilis magis est natura, et copia major."

Uf. Virgil, Georgics I, 143 sq.:

"Tum ferri rigor atque argutæ lamina serræ—
Nam primi cuneis seindebant fissile lignum—
Tum variæ venere artes."

The Plate in Spon, *Miscellanea Erudite Antiquitatis, Jugduni*, 1685

(the year of the Revocation of the Edict of Nantes), p. 125, represents Diogenes *in dolio*—Torreuma, work executed in relief—*cum baculo et pera Philosophica, assidente cane*. So Juvenal, Sat. XIV, 309, calls the philosopher *Cynicus*. There is a portico of a temple between him and the dog. The article also contains a notice of an engraved gem and an inscription.

Martial, Epigrams IV, 53 :

Hunc, quem sæpe vides intra penetralia nostræ
Pallados et templi limina, Cosme, novi
Cum baculo peraque senem, cui eana putrisque
Stat coma et in pectus sordida barba cadit.

These lines serve as a commentary on Spon's Plate. Compare Cicero, *Tusculan Disputations*, I, xliii, § 104, speaking of Diogenes, "Projici se jussit inhumatum. Tum amici, Volueribusne et feris? Minime vero, inquit: sed bacillum propter me, quo abigam, ponitote."

In the *Ancient Marbles of the British Museum*, Part X, Plate XXX, is a very pleasing representation of a hermaphrodite. The figure holds in the right hand a bunch of grapes to feed a bird, restored as an ibis; it may, however, have been a goose. Compare Vaux, *Handbook to Antiquities*, in the same Collection, p. 196, Janiform heads of Bacchus and Libera. We have here Dionysus, under his androgynous type, as partaking of both sexes. Sir H. Ellis, *Townley Gallery*, Vol. I, p. 338 *sq.*, Bacchus, *ἐπιπορφος* (biformis), Note 28; Millingen, *Ancient Unedited Monuments Cited*, Series II, p. 20, chap. on terminal heads; *Ancient Marbles of the Brit. Mus.*, Part II, Pl. 17, with Greek and Latin quotations, Note 1.

The fable of the nymph Salmaeis combined into one person with Hermaphroditus will be found in Ovid *Metamorphoses*, IV, 285-388, following almost immediately the transformation of Clytie (well known from the bust so-called in the Brit. Mus.) into a heliotrope—*ibid.*, v. 270 :

Vertitur ad Solem : mutataque servat amorem.

Baumeister, *Denkmäler des Klassischen Alterthums*, I, 672; from which I extract the first sentence: "Es kann kaum einen Zweifel unterliegen, dass dieses doppelartige Wesen Ursprung in den orientalischen Religionen habe, in welchen eine mannweibliche Venus als vollkommenstes Bild der Naturgottheit bezeugt ist."

Statues of the Hermaphrodite are described, with references, in the *Roman Court Catalogue of the Crystal Palace*, pp. 80, 81, 85, written by the late Sir George Scharf. The Preface, pp. 1-30, ends with a list of the principal illustrated works on Sculpture, &c. The title is too modest, for the list is accompanied by remarks that will be useful not merely to the tiro, but also to the advanced student. Sir G. Scharf's labours as an artist and author have been recorded in the anniversary address delivered April 23, 1895, by Sir A. Wollaston Franks, as President of the Society of Antiquaries (*Proceedings*, Vol. XV, pp. 377-379.)

In the earlier part of his career our departed friend had paid special attention to classical Archæology, and I may be permitted to add that, with his habitual kindness, he afforded me valuable assistance in forming Art-Collections that would render lectures on Greek

and Latin authors at Queen's College, Cork, more realistic and interesting than they usually are.

Other words compounded with Hermes occur: v. Spon, *Miscellanea Erud. Antiq.*, Sectio I, Articulus iv, De Hermis, Hermathenis, Hermerotibus, Hermaubibus, Hermeracibus, Hermharpocratibus et Hermaphroditis, p. 9, Tab. X-XVII and Tab., p. 15; *Dictionary of Antiquities*, Third Edition, Vol. I, 955a, s.v. Hermæ. Such figures, according to the best recent criticism, were composed of the square pillar, as the emblem of Hermes, surmounted by the bust of the other divinity. Cicero mentions these combinations three times in the First Book of his *Letters to Atticus*, I. fin. (*Mongault* X; an excellent edition with a French translation interpaged, and notes), "Hermathena tna valde me delectat." IV, 3 (*Mong.* IX), "Quod ad me de Hermathena scribis, per mihi gratum est, et ornamentum Academiæ proprium meæ." X, 3 (*Mong.* VI), "Signa nostra et Hermeracelas." He is here speaking of the decoration of a Villa; see Middleton, *Life of Cicero*, Vol. III, pp. 294-297; especially the last page.

The Museum at Cologne possesses a marble head, or rather mask, of Medusa, resembling the one at Munich, but it cannot be adduced as an example of the type with wings, because these appendages are modern restorations. This specimen of ancient sculpture is incomparably the finest in that collection. *Verzeichniss der Römischen Alterthümer des Museums Wallraf-Richartz in Köln*, aufgestellt von Prof. Dr. H. Düntzer, I. Erdgeschoss. "Den Eintretenden blickt hoch am äussersten Fenster rechts die Kolossale Marmormaske des von Perseus abgeschlagenen Hauptes der sterbenden Meduse mit ergreifendem Ausdrucke unendlichen Leides an." C. W. King, *Antique Gems and Rings*, Vol. I, p. xv., Description of the wood-cuts in the text. P. 258, the celebrated Medusa of Solon (Blacas); *ibid.*, p. 326, the countless number of Cameo Medusas (Renaissance) . . . in three-quarter face, with the eyes staring wide. Vol. II, p. 73 (*Miscellaneous Gems*), Plate I. No. 5, The Dying Medusa; p. 79, Plate III, Roman Intaglio, No. 17, Gorgon's head. The remarks of this learned connoisseur deserve careful attention, because they often contain information not easily accessible elsewhere.

Catalogue of Engraved Gems in the Brit. Mus., 1888. Medusa v, Index of Subjects, p. 237, esp. Nos. 1240-1256; 1258-1262; *cf. omn.* No. 1256. The Strozzi Medusa and the literature connected with it, inscribed ΣΟΛΩΝΟΣ, *cf.* Gorgoneion, p. 235. *Catalogue of the Marlborough Gems* by M. H. Nevil Story-Maskelyne, pp. 16-18, Nos. 96-108, esp. No. 100, under the heading, "Associations, Attributes and Symbols of Pallas." The metopes of Selinus, now deposited in the Museum at Palermo, offer us an archaic representation of Medusa, beheaded by Persens, Minerva standing by to aid him (Baedeker, *Italie Méridionale et la Sicile*, edit. 1877). Introduction, *L'Art chez les Anciens*, par R. Kekulé, p. xxvii sq.; *ibid.*, p. 247. Meyer's *Reisebücher, Unter-Italien und Sicilien* von Dr. Thomas Gsell-Fels-Zweiter Band: Sicilien. 2, Palermo (*Museo Nazionale, Erdgeschoss*), p. 222. 2,* Metope mit Persens, welcher die Medusa tödtet, aus deren Blut der Pegasus entspringt, &c.: details are minutely described in a manner which corresponds with the general accuracy of this excellent guide-book. Serra di Falco, *Le Antichità della Sicilia*, Vol. II, t. 27. Müller-Wieseler, Part I, Tafel V, No. 25;

text p. 4. Lübke *Grundriss der Kunstgeschichte*, Vol. I, p. 116. Baumeister, Fig. 983, Ältere Medusa, found in the substructions (*Unterbau*) under the Parthenon. The same article contains, Fig. 984, an engraving of a coin of the gens Cornelia struck in Sicily, which is remarkable; the device on the *reverse* being Medusa's head in the centre of the *triquetra* (Cohen, *Médailles Consulaires*, Pl. XIV, No. 13; text pp. 104 (No. 28), and 111. Baumeister, Fig. 985, Rondanini Medusa.

Medusa's head as an ornament, like some other mythical subjects, was retained in Christian Art, *e.g.*, it occurs twice on a sarcophagus at Arles inscribed PAX AETERNA.

Rome, personified as a goddess, bears a close resemblance to Minerva, which is proved by the fact that a colossal bust in the Vatican is assigned by Visconti (*Museo Pio-Clementino*, tom. VI, tav. 2) to the former, and by Hirt to the latter. They may be distinguished without difficulty: Minerva has the ægis (goatskin) with the appalling Gorgon's head in the centre, and these attributes are wanting in the deified Rome: v. Hirt, *Bilderbuch für Mythologie*, Part I, pp. 46–50. Tab. VI, Nos. 6, 7, 8, and *Vignette*, p. 50, p. 47 note. Part II, p. 184 *sq.*, Tab. XXV, Figs. 15–19. Emil Braun, *Ruins and Museums of Rome*, p. 210. This bust of Minerva, now in the Gallery of Statues, was probably one of the ornaments of Hadrian's Mausoleum. Compare the Vienna Cameo, Rome enthroned, seated with Augustus. Von Sacken und Kenner, *Das K. K. Münz- und Antiken-Cabinet. Antike geschnittene Steine. Kasten II, No. 2*, p. 418. A better account of it is given by Dr. Robert Ritter v. Schneider in the *Übersicht der kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauses*, Wien, 1892, p. 101. *Antikensammlung. Saal XIV, Schrank VI, No. 14 Gemma Augustea*. It is justly called Dieses unvergleichliche Meisterwerk römischer Glyptik.

Maximianus I must not be confounded with the second of this name, Maximinus, or Maximin—also Roman Emperors—still less with St. Maximianus, Archbishop of Ravenna, whose pastoral chair (*circa* A.D. 550), formed of ivory, beautifully carved, is still to be seen in that city. Lübke, *op. cit.*, Vol. I, p. 266, Fig. 178, two woodcuts—one showing the whole, the other a part on an enlarged scale. The monogram of the Saint appears in front. His name *in extenso* is inscribed over his head on a mosaic at San Vitale, where, attended by two priests, he precedes Justinian. Dr. Appell, *Catalogue of Reproductions of Christian Mosaics exhibited in the South Kensington Museum*—copies reproducing the size and colour of the originals. The Emperor Justinian and his Court, &c., pp. 7–9, esp. p. 8, Maximian habited in an alb and chasuble: p. 9, at the end of the article, many English and foreign authorities are cited.

In my note on the *carpentum* I have mentioned the *carrucha*. A good example of it is supplied by the *Trésor de Trèves*, which contains an ivory tablet of fine workmanship. We there see the *carpentum* in a procession for the translation of relics. See *Le Trésor de Trèves* par Léon Palustre et X. Barbier de Montault, Prélat de la maison de sa Sainteté, Pl. I, Ivoire Latin V^e. Siècle with explanatory text. From this photo. Daremberg and Saglio seem to have copied the illustration for their article, *Carrucha*, Fig. 1198. My paper on the "Antiquities of Trèves and Metz," Part I, *Archæol. Journ.*, Vol. XLVI, p. 228, Note 3.

I have made some remarks on the Bear in a relief found at Teurnia in 1827. We seldom meet with the bear in Greek Art; this ugly creature makes his appearance on the coins of Urso, a city of the Turdetani in Baetica, hodie Osuña; Aloïs Heiss, *Description générale des Monnaies Antiques de l'Espagne*, pp. 318-320, Pl. XLVI, 1, "Ours à droite assis et tenant une palme."

According to H. Hermann's explanation, Eutyche's (fortunate) expresses a prayer for the success of Valerian; but the epithet forms a strange contrast with the fate of this emperor, the most unfortunate in the long line of Caesars, who was not only defeated by the Persian king, Sapor, but exposed to the most humiliating indignities. Gibbon (Chap. X, Vol. I, pp. 403, 406, 407, edit. Smith) here follows Tillemont, *Histoire des Empereurs*, who gives many details together with copious references in his marginal notes; see esp. Article IX, "Traitement indigne que Sapor fait à Valerien."

Mommsen in *C. I. L.*, *loc. citat.*, states, I think correctly, that the above-mentioned sculptures exhibit Diana standing by an altar inscribed NEMESI AVG. With the juxta-position of these two deities we may compare an inscription found at Aquincum, DEÆ DIANÆ NEMESI-AVG: My paper on Antiquities at Buda-Pest, *Archæol. Journ.*, Vol. L, p. 330, and Professor Torma Károly, *Az Aquincumi Amphitheatrum*, 1881, 8vo, pp. 109. Mommsen infers from the day on which the festival of Nemesis Augusta was celebrated, June 24, that she was the same as Fors Fortuna; see *Note, Archæol. Journ.*, *loc. citat.*

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Muchar, *Das Römische Noricum*, 1823, 1826, an important work but partially obsolete in consequence of a more careful study of inscriptions and the discovery of pre-historic antiquities, in our own times: "scriptor est nec peritus satis nec simplex et in auctoribus indicandis parum accuratus," *C. I. L.*, III, ii, p. 588.

Corp. Inscr. Lat., Vol. III, Pars Posterior, edit. Mommsen, Inscriptionum Illyrici Pars Sexta-Noricum; De Noricarum Inscr. auctoribus. Noricum, pp. 587-704; much information is given in the preface to each section. Supplementum, edit. Hirschfeld, pp. 1808-1851.

Die alte Geschichte Kärnten's von der Urzeit bis Kaiser Karl dem Grossen neu aus Quellen bearbeitet von Karl Baron Hauser. This book contains Plates to illustrate the "First Iron Age" (*Hallstätter Zeit*), a model of a four-wheeled chariot drawn by four horses, animals and human figures, rude workmanship of a primitive population, pp. 16-19; and secondly, for the Keltic Period, a series of coins found in Noricum, pp. 30-32. The term *Hallstätter Zeit* will be understood by referring to a Catalogue entitled *Die Sammlungen des K. K. Münz- und Antiken-Cabinetes* (Wien), by Von Sacken und Kenner, pp. 318-322. *Die Funde von Hallstatt im oberösterreichischen Salzkammergute* (Zimmer I, Tisch VII, VIII und Zimmer IV), many graves were explored and 5,924 objects were found belonging to the end of the Bronze Age or the beginning of the Iron Age. In the Museum at Vienna the number of specimens exhibited amounts to 2,460.

The latter set of Hauser's Plates is specially interesting, if compared with money struck in Gaul before Cæsar's arrival there, and considered in connection with *tumuli* examined in South Germany, the Rhineland and France. Thus we are assisted to trace a migration of the Celtic races Westward; while, on the other hand, some tribes moved Eastward from the valley of the Danube, and settled in a part of Asia Minor, called from them Galatia. See Mons. H.-A. Mazard, "Essai sur les Chars Gaulois de la Marne." *Extrait de la Revue Archéologique*, Avril, 1877, p. 11.

Führer durch das Historische Museum des Rudolfinums in Klagenfurt, 1893, von K. Baron Hauser.

Jabornegg-Altenfels, *Uebersicht der in der Monumenten-Halle des Landhauses zu Klagenfurt, aufgestellten, in Kärnten gefundenen und im Besitze des kärntn. Geschicht-Vereins befindlichen Römersteine*.

Kärnten's *Römische Alterthümer*, by the same author. 4to, with photographs, lithographs, and maps, 1871.

Virunum von Fritz Pichler, 1888.

Bild-Beilagen zu Fritz Pichler's *Virunum*, Atlas of Plates.

Illustrierter Führer durch Kärnten mit besonderer Berücksichtigung der Städte Klagenfurt und Villach sowie der Kärntnerischen Seen und ihrer Umgebungen von Josef Rabl, 1884.

The preceding list is by no means complete; it includes only some of the books which it is desirable that the enquirer should consult. Publications of learned Societies in Carinthia and in Vienna will also be found useful.

Besides the valuable assistance received from other friends, I am particularly indebted to Dr. Robert Ritter von Schneider, Director of the Collection of Antiques in the Kunsthistorischen Sammlungen des Allerhöchsten Kaiserhauses (Wien), who favoured me with three excellent photographs of the so-called *Hermes Logois*—two of the head, and one of the whole figure; the last has been copied to illustrate this memoir.

P.S.—Tear-bottles were unknown to the Greeks and Romans; but we meet with them among Oriental nations. An account of this usage appeared, as follows, recently in one of the London newspapers:—

"The custom of bottling tears is peculiar to the people of Persia. There it constitutes an important part of the obsequies of the dead. As the mourners are sitting round and weeping, the master of ceremonies presents each one with a piece of cotton wool or sponge with which to wipe away the tears. This cotton wool or sponge is then put into a bottle, and the tears are preserved as a powerful and efficacious restorative for those whom every other medicine has failed to revive. It is to this custom that allusion is made in the Psalms—'Put thou my tears into thy bottle.'"

Matthew Henry, *in loco*, pithily remarks, "What was sown a tear will come up a pearl."

Lachrymatorium does not occur in Classical Latin; Ducange's *Glossary* gives the word, and explains it: 1. *Locus lachrymarum*; 2. *Linteum quo oculi absteruntur*.

Proceedings at Meetings of the Royal Archaeological Institute.

February 5th, 1896.

JUDGE BAYLIS, Q.C., V.P., in the Chair.

Mr. ANDREW OLIVER exhibited a small funereal figure taken from a tomb in Egypt. It probably dates from the twenty-sixth dynasty (about B.C. 600), and represents a field labourer with a hoe and sandbag in his hands. Such figures, called "Answerers," were supposed, by aid of a magic formula engraved in hieroglyphics on the statue itself, to perform the deceased's obligatory labour in the Elysian fields. The name of the person for whom this figure was made was Wahab-Ptah. Mr. Oliver also exhibited a painting of the Holy Trinity on alabaster and a small silver-gilt plaque of St. Peter, surrounded by small paintings on ivory.

Mr. C. E. KEYSER, M.A., F.S.A., read the first instalment of a paper entitled "Recently Discovered Mural Paintings at Willingham Church, Cambridgeshire, and elsewhere in the South of England," but confined his remarks to Suffolk, Essex, Hertford, Kent, Sussex, Hampshire, Dorset, and Devonshire, leaving Willingham Church to be dealt with in a subsequent paper. The author commenced with describing the twelfth and thirteenth century paintings at Lakenheath Church, Suffolk, and the Norman painting at Heybridge and Copford in Essex. Passing on to Littlebourne and Boughton Aluph in Kent, he dealt with the little church of Clayton in Sussex, and described the large and early representation of the Doom therein depicted. The paintings of the thirteenth and fourteenth centuries representing the Annunciation and St. Michael weighing souls, found at Rotherfield, were then described; also a fine example of St. Christopher at West Grinstead. Mention was made of a large fourteenth century painting at Catherington Church in Hampshire, representing St. Michael weighing souls, and the most recently discovered paintings at Wellow of the figures of St. Thomas à Becket, Edmund of Pontigny, Archbishop of Canterbury, besides other figures. The paper closed with descriptions of paintings to be seen at Wimbourne Minster in Dorset and at Axmouth in Devonshire. Mr. Keyser promised to read the remaining portion of the paper at the May meeting.

Mr. TALFOURD ELY, M.A., F.S.A., exhibited, and read a paper on, a terra-cotta figure found in Cyprus by Major Alessandro di Cesnola, and published in *Salamina* as "a bearded Hercules . . . in a lion's skin." Mr. Ely showed that this was incorrect, and that the figure was that of Silenus, of a somewhat refined type. Silenus was a favourite subject with artists of every kind. A cast was shown of the unique tetradrachm of Ætna with the head of Silenus. Mr. Ely traced the development of Silenus from an independent Asiatic deity of flowing water (as on the Ficoroni *cista*) to the position of a

drunken servant of Dionysos. As to outward form, the lowest type is the Papposilenus. A nobler conception is found when Silenus appears as the guardian of the infant Dionysos. Like other water deities, Silenus was gifted with wisdom and prophetic powers. To idyllic poetry he is what Teiresias is to tragedy and Calchas to epic verse. Though sometimes confounded with Satyrs, he is distinctly their superior, as in the Satyric drama and in the pageants of the Ptolemies. His rugged features were well adapted for *grylli* and to ward off the evil eye. Like Pan, he formed an excellent foil for Eros and other types of youthful beauty so prevalent in later Greek art. Mr. Ely came to the conclusion that his terra-cotta represented an actor playing the part of Silenus.

Mr. Ely's paper will be published in a future number of the *Journal*.

March 4th, 1896.

VISCOUNT DILLON, F.S.A., PRESIDENT, in the Chair.

Mrs. A. KERR exhibited a Brevet issued to Jean François Rieher during the French Revolution, and dated "premier germinal 2 annee."

Mr. J. L. ANDRÉ, F.S.A., exhibited a carved wooden panel of late sixteenth century work. The panel was purchased near Horsham, but it is of foreign workmanship.

Mr. H. LONGDEN exhibited, by permission of the Hon. Mark Rolle, a curious brass from Petrockstow Church, Devon. The brass, which was described by Mr. Mill Stephenson, is to the memory of Henry Rolle, Esq., his wife Margaret, who died in 1591, and their nineteen children. Further notes and an illustration of the brass will be given in a future number of the *Journal*.

The PRESIDENT read a paper on "Feathers and Plumes," principally from an inventory of the feathers and plumes in the royal stores, *temp.* Elizabeth. The President further commented on the fashion and use of feathers in civil and military costume as illustrated in drawings in MSS. and allusions by the dramatists. Lord Dillon's paper will appear in a future number of the *Journal*.

Mr. H. H. S. CUNYNGHAME read a paper entitled "Notes on the Possible Arabian Origin of Gothic Characters, Derived from an Examination of the Methods of Writing used by the Arabs." Mr. Cunyngname said: It needs only a little consideration in order that the influence of tools upon caligraphy may be recognised. The writing of the Assyrians was the direct result of the use of clay, and the Chinese has probably been developed in a similar manner.

There are three principal sorts of pens which have had their influence on the written and printed characters of Europe, namely, the stylus, the reed, and the quill. The stylus, or point, produces letters such as we find inscribed on the walls of Pompeii, in which the characters closely resemble our own capitals, but without any difference between the thickness of the lines. The stylus was chiefly used on tablets painted over with wax or some analogous composition of a different colour.

With the use, however, of linen or papyrus bark, or finally of paper, a different writing pen became necessary, and we have the choice of the brush of the Chinese, or else the reed pen of the Egyptians, from whom it was in all probability borrowed by the Arabs and, in short, by all the Semitic nations. Anyone who has watched a native Arab write will observe that he adopts a very peculiar attitude, holding his paper at an angle of 45° and his pen nearly horizontal. This will excite surprise until an attempt is made to write with an Arab pen upon a flat surface, when it will be found impossible.

The pen is so flat that it will retain no ink. Consequently, it must be held horizontal, and the paper or parchment inclined in the way we see it represented in old missals. The pen consists of a peculiar reed, very silicious and hard on the outside and very flexible, cut in a peculiar manner. Its action may be demonstrated by substituting for it a sort of machine like those employed to spread gums, and which is held in a sloping position. The peculiarity of the reed is, that one can write by pushing it forward like a plough, which cannot be done with a pen.

Now, the suggestions which I desire to bring to your notice is, that the men in whose hands learning lay during the darkness of the middle ages were Arabs, chiefly in Spain. For centuries Aristotle's works and the great *Syntaxis* of Ptolemy, originally in Greek, were only known by means of Latin translations from Arabic translations, and I submit that it is probable that such translations made by Arabs, would be written with the Arab pens at their command.

The reed, however, being indigenous only round the banks of the Mediterranean it became natural to seek for a substitute, and the quills of birds were used. They possessed one great advantage, in that they would hold the ink when used upon a flat surface. This is of course due to their tubular form. But they had a great disadvantage in that they could not be driven like a plough, but only dragged over paper. They are hence absolutely unfit for writing Arabic. But inasmuch as Gothic is written from right to left the ordinary quill will write Gothic fairly well, only that back turns are difficult. It is, however, to be observed, that the pen is usually employed more straight to the paper than the reed, so that the down strokes have a tendency instead of being thick when upright or inclined to the left to be only thick in the down strokes. In fact, a pen really only writes thick lines well in *one* direction, and not in all directions as does a reed.

The use of the pen led to a new sort of character, which was developed by the Italians.

By a comparison of very early Gothic missals with the missals of the Arabs I could bring much evidence to show that the instruments for ruling lines and describing circles were very similar, and also that the incipient Gothic ideas of illuminations, though undoubtedly ultimately traceable to the Greek and Egyptian, and very "Byzantine" in appearance, were inspired to a great extent by the style which the learned Arabs had caught from the Greeks of later Egypt, and this may perhaps be considered as lending some weight to the theory which I have had the hardihood to submit to you.

Notices of Archaeological Publications.

CHRONOGRAMS. Collected (more than 4,000 in number) since the publication of the two preceding volumes, in 1882 and 1885. By JAMES HILTON, F.S.A. 4to. London, 1895 (Elliot Stock.)

We have here a third volume on a subject which the author has well made his own; an excellent example of successful perseverance in the neglected by-paths of literature. The former volumes practically introduced the subject to general notice, until then known to but few, hardly more than heard of by others, and entirely unknown generally. It may be stated that a chronogram is a mode of marking a date by so forming a sentence that the Roman numeral letters therein shall, when the numbers so represented are added together, give the year or date desired. For example, one given here will make all clear:—

Here yoV haVe yet another qVite neVV book of rIght
eXCeLLent ChronoGRAMs IssVeD by I. HILTON, F.S.A.

The capitals, the Roman numerals, being added together give the year date 1895. Usually, as above, the date letters are larger, or in capitals, and thus attract attention. To make a true chronogram every word should contain at least one numeral letter. Every numeral letter must be reckoned; neither choice nor excess can be permitted, or there would be no certainty; also neatness and conciseness are necessary. The intention is to supply a date, not to make a puzzle. Over thirty-eight thousand examples of this form of curious ingenuity have been collected and noticed, of which number over fourteen thousand seven hundred are recorded in print. The antiquity of this custom can be traced as far back as the year 1210, necessarily in manuscript, but the sixteenth, seventeenth, and the early part of the eighteenth centuries were the times when it flourished, favoured of course by the extension of printing. Care must be exercised in determining the actual date of execution, as sometimes the work is retrospective—done actually after the date represented or recorded. As compositions these chronograms are seen often as most difficult; to those who can appreciate them their cleverness must be at once recognised. Their character varies, for they are found curious, serious, humorous, and scholarly. The subjects treated also widely varied, for here we have them on books, epigrams, sundials, emblems, engravings, portraits, title pages, medals, coins, the drama, history, horoscopes, mourning rings, monumental inscriptions, mottos, broadsheets, nuptial congratulations, and almanacs. In the last-named each day has a distinct line or sentence with a chronogram; one example is named which has nine hundred and fifty-nine different chronograms, all marking the year 1724. A play was written in Flemish, each line in rhyme but containing a chronogram marking the date 1688. When recited, of course all the

clever ingenuity of this intention must have disappeared. Of the latest examples of this work one is given of 1874 and one of 1882. Since then there are some of 1887 relating to the Queen's Jubilee, perhaps so revived as a consequence of these publications.

Besides the chronogram there were other methods or forms of this literary conceit, namely, the cabala, the anagram, and the logograph. One form of the cabala was by using all the letters of the alphabet. Thus A to K inclusive marked units to ten. From L which marked twenty, to T inclusive mounting each letter by ten, reached one hundred. From U which marked two hundred, and then X Y Z mounting each letter by a hundred, marked to five hundred. Another form was by using the vowels only, thus a, e, i, o, u represented 1, 2, 3, 4, 5. Of this plan a good example is given on page 244—very puzzling, but very clever.

Mighty pretty is the author's delight and astonishment on finding a wonderful unique book just suited to his mind, a *chef d'œuvre* of this class of labour, containing many examples—a sweet honeycomb, which he at once proceeds to rifle. We wish him heartily further similar luck and delight, and that fresh discoveries will reward continued research in the yet untrodden ways where such literature may be expected. We are almost promised more, judging by the following, which appears on the title page:—

Another bVDget needS another CLearanCe	= 1255
So noVV yoV haVe another Last appearanCe	= 170
Ask VVhether thIs the Very Last VVILL be	= 177
I Can bVt ansVVer "he VVho LIVes VVILL see"	= 293
	1895

Much more could be noted from such a full volume, but it is hoped enough has been said to give a good and sufficient idea of the most valuable information it contains. No other similar work exists—nowhere certainly can such a mass of information as is here brought together be met with. Any one thus making a first acquaintance with the subject will soon feel a charming and keen appreciation of the newly-discovered art, for these conceits are really curiosities in literature—instructive, valuable, and entertaining. As a whole, the work will form a perfect guide to the student, and, as it fills a void it must soon have a place in every library in the list of standard reference books. It is the successful result of unwearied patience and tenacious research. The infinite capacity for taking pains, always indispensable to genius, is manifest on every page. Some title pages have been well reproduced, and also some curious tail pieces from old books—all worthy of notice. There is an excellent index giving full aid to the searcher.

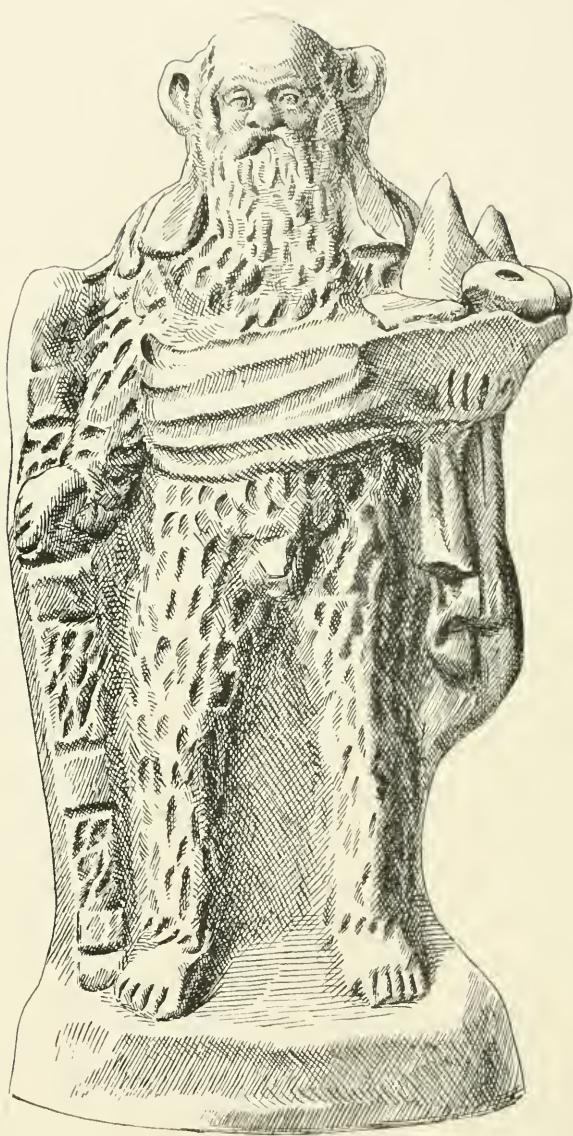
NOOKS AND CORNERS OF PEMBROKESHIRE. Drawn and described by H. THORNHILL TIMMINS, F.R.G.S., author of *Nooks and Corners of Herefordshire*. (London: Elliot Stock.) 4to. 1895.

From time to time a pleasant volume such as this comes before us. Without pretence to historic detail, it is nothing more than notes made in a wandering tour, in the by-ways of the pleasant land of Pembrokeshire, sometimes known as Little England beyond Wales.

Few localities can boast within so small a compass such varied attractions for the lover of old world associations. Besides old churches, ruined castles, and fortified houses, the constant occurrence of camps, cromlechs, hut circles, and other prehistoric remains, there are always quaint legends and superstitions—a happy hunting ground for those curious in folk lore. The hilly wild ways make travelling very tedious. There are said to be sixteen miles and seventeen hills between Haverfordwest and St. Davids, a wearisome journey. The author notices the strongholds of Pembroke, Manorbere or Maenor Pyrr (which is fully described), Carew, Roche, and Haverfordwest, and Tenby full of curious nooks. At Carswell there is a remarkable group of stone buildings with vaulted chambers, huge fire places and bulging chimneys, a puzzle still to the archæologist. Of Caldy lobsters an old writer says :—"The lapster sett whole on the table yieldeth exercise, sustenance, and contemplation ; exercise in cracking his legs and claws, sustenance by eating the meate thereof, and contemplation by beholding the curious work of his complete armour both in huc and workmanship."

It is to be hoped that readers will catch at the pleasure to be derived from such a peregrination as is here recorded, and give us similar examples of what may be done by an intelligent observer skilfully aided by pencil and kodak. There are maps, many pretty sketches, and an index.





TERRA-COTTA STATUETTE FROM CYPRUS.



A CYPRIAN TERRA-COTTA.¹

By TALFOURD ELY, M.A., F.S.A.

The statuette which I now place before you was, with two others, bought by me at Sotheby's, in 1892, at the sale of Cyprian antiquities belonging to the late Edwin Henry Lawrence, Esq., F.S.A., a great-nephew of Sir Thomas Lawrence, once President of the Royal Academy. These antiquities were obtained by Mr. Lawrence from his son-in-law, Major Alessandro di Cesnola, who is said to have discovered "14,000 objects of archaeological value," before the British occupation of Cyprus.²

In the sale catalogue the statuette is described as an "Actor in bear's skin." On the plinth is "Cyprus (Salamina), Jan., 1878."

In *Salamina*,³ however, there is a woodcut of this figure, which is described as follows :—

"Fig. 227 *Terra-cotta* Statuette of an Actor." "Another grotesque figure is that of a bearded Hercules of a very archaic type, and clad completely in a lion's skin, the head and ears of which are placed on his head, so that the ears project on the right and left. His beard falls on the breast of the statuette, the bare face of which has a stony and energetic expression. In his right hand is a monstrous club, strengthened with bands of metal; it rises to the owner's shoulders. In his left hand is a large basket or dish, filled with fruit of different kinds, as well as a piece of flat bread or cake; his hands and feet are bare."

The latter interpretation is scarcely admissible. The skin perhaps *might* possibly be a bear's; it could hardly be a lion's, for the distinctive scalp and jaws are lacking.

Again, neither type of countenance nor attributes can be said to be those of the hero in question, even allowing for comic extravagance. There is nothing "archaic" in the type.

¹ Read at the Monthly Meeting of the Institute, February 5th, 1896.

² Preface to second edition of *Salamina*, p. xxiv.

³ *Ib.*, p. 198.

Let us look for ourselves then, and we shall find that the figure is standing in a position of rest, with right knee slightly bent, and right foot a very little advanced. With his right hand he clasps an object resting on the ground, and much larger than an ordinary club, for it reaches almost as high as his shoulder; except hands, face, and feet (which are bare), the whole figure is covered with a close-fitting, shaggy skin. The forehead is high, bold, and wrinkled; the face better modelled than the rest, with beard and drooping moustaches. The ears are those of a beast, and may possibly be attached to the hide. Some drapery wound round the waist falls in folds at the left side. The left hand supports a basket, in which are probably fruits, five in number, but possibly they may be sacrificial cakes. The aged look and staid respectability of the face are not at all suited to the gluttonous and generally disreputable brawler who answers to the name of Hercules on the ancient stage. It is rather a peaceable deity of woods or gardens that stands before us. I see nothing of "a stony and energetic expression," but rather a placid—and even benevolent—countenance, such as would befit a worthy and prosperous City merchant, or more appropriately a model country gentleman "all of the olden time," with a weakness for occasional indulgence in more wine than was good for him.

If the figure is not a Hercules it is hardly more correct to describe it generally as an "actor." What a comic actor of classic times looked like may be very well seen in the Terra-cotta Room at the British Museum, where a shelf in Centre-case B supports a series of grotesque dramatic figures. It must not be forgotten that, even in Tragedy, masks were regularly employed; and the large mouths of these were vastly distorted for the purposes of the comic and satyric stage. In the face of our figure there is no such distortion, and if we compare it with the above-mentioned terra-cottas in the British Museum, or with the very next woodcut in *Salaminia*¹ (which happens to represent an actor), we shall see its decided difference from the huge-mouthed mask.

We have found, then, that the statuette is neither a Hercules nor an "actor in bear's skin."

¹ Fig. 228.

What, then, is its proper interpretation? This, I think, is not very difficult to determine: it is a Seilenos. That faithful nurse and supporter of Dionysos from childhood is very frequently met with in collections of terra-cottas, *e.g.*, there are three images of him in one wall-case in the British Museum (Case 54 in the Terra-cotta Room).

I do not, however, remember to have seen any representation of him exactly like the one now before us. He is generally far more gross and objectionable in pose and general bearing, a very Falstaff of mythology.

Lucian¹ describes him as a stumpy old fellow, fat, and with big ears sticking up, and an utter coward—a description closely tallying with extant monuments.² Still, however unattractive he may be to our prosaic minds, devoid of Bacchic inspiration, he was in ancient times a favourite with artists of every class and every rank, from the most ambitious sculptor to the humblest purveyor of images in clay. With the vase painters he was a stock subject; and in Furtwängler's admirable *Beschreibung*, of the Berlin collection of 4,221 vases, there are no fewer than 137 entries under the head of "Silen."

In forty or fifty paintings discovered at Pompeii or Herculaneum Seilenos figures conspicuously. By Pliny there are mentioned, among the works of Praxiteles which had been brought to Rome, "Sileni in Pollionis Asini monumentis."³ Among these was probably to be found the original of the pleasing group exhibited at Athens (in Pentelic marble), at the Louvre, and elsewhere,⁴ of Seilenos, here in nobler form, holding the infant Dionysos, a motive well known to us through that prized remnant of the master's work, the Hermes and Dionysos, discovered in 1877 in the Temple of Hera at Olympia, and also through the Munich Eirene and Ploutos,⁵ copied from the work of Kephisodotos, the father of Praxiteles. Perhaps such a Seilenos is intended when Pliny, speaking of

¹ *Bacchus*, 2; *Cf. Deorum Concilium*, 4.

² *E.g.*, the figures in Wall-case 38 of the Bronze Room in the British Museum.

³ *Naturalis Historia*, xxxvi, 23.

⁴ *E.g.*, in the Munich Glyptothek,

No. 114, and in the Vatican. A remarkable vase from Athens in the Berlin Antiquarium (No. 2,925) shows Papposeilenos carrying the infant Dionysos on his left arm.

⁵ No. 96 in the Glyptothek.

"Satyrs" by unknown masters, mentions one who *ploratum infantis cohibet*.¹

A crouching Seilenos is to be seen at Athens (in place of an Atlas) now supporting the cornice of the front wall of the stage of Phaedrus,² but apparently adapted from an earlier structure. This was a favourite motive. Copies of it slightly modified are a replica, once used as a fountain, found at Rome in 1874,³ and a kneeling Seilenos in terra-cotta from the Lecuyer collection now at Berlin.⁴

At the British Museum Seilenos is to be found on a leaden cup in the Etruscan Saloon. A little further on he may be seen in terra-cotta, supported by Eros, close to the Gold Ornament Room.⁵ He is credited with 54 out of the 2,349 items comprised in the Catalogue of Engraved Gems exhibited in that room, the representation often taking the form of a "Mask of Seilenos."

There are also several masks of Seilenos in terra-cotta from Capua in the Terra-cotta Room,⁶ where, too, is to be seen an interesting Greek statuette of Seilenos carrying the infant Dionysos,⁷ and dangling before him a bunch of grapes.

Of the coins representing Seilenos, one only need be mentioned here. It is the unique tetradrachm of Ætna, as Catana was called for about 15 years before its overthrow in 461 B.C. This splendidly preserved specimen of fine archaic work, apparently fresh from the mint, is now in the hands of Baron Hirsch; but an electrotpe is in the



British Museum, and of this, through Mr. Barclay Head's kindness, I am able to show you a copy. Besides the reference to the huge beetles celebrated by Aristophanes,⁸ the type is, as Mr. Head has observed,⁹ eminently characteristic of the

Cyclops of Euripides, Seilenos was kept in bondage in the

¹ *Nat. Hist.*, xxxvi, 29. See Welcker quoted by Wieseler *Denkmäler der alten Kunst*, ii, 406.

² See *Monumenti dell' Instituto*, ix, 16.

³ *Bulletino della Commissione Municipale*, tav. xiv, xv, i, p. 135ff.

⁴ Furtwängler, *Jahrb.* ii (1887), p. 200.

⁵ In Wall-cases 10-12.

⁶ Wall-case 67. They were probably amulets, to avert the evil eye. See

Furtwängler, *La Collection Sabouloff*, note 15, on plate 149.

⁷ In Wall-case 15. It is said to be a caricature of the Hermes of Praxiteles, but Seilenos is looking at the grapes, and not out into the distance, like the Hermes. Compare the Seilenos and Infant from Melos in central-case B.

⁸ *Par.* i, 73.

⁹ In the Bronze Room, Table-case B.

caves of Ætna, a district rich in the wine to which he was so warmly attached.

Among the marbles in the Græco-Roman Basement at the British Museum is a disc bearing on the obverse Pan, on the reverse Seilenos before an altar.

Mr. A. S. Murray, Keeper of the Department of Greek and Roman Antiquities, has pointed out to me the interesting Greek bronze of "Seilenos Kistophoros,"¹ which resembles the Pompeian bronze lamp-bearer at Naples,² and, like that figure, must have been intended to support something.

Among the vases we find Seilenos masquerading in the midst of his brethren in guise of a herald, on a red figured Psykter.³ In more serious fashion he takes a leading part in imitating a neophyte in the Bacchic mysteries, as depicted on a terra-cotta relief.⁴

We must not forget, however, that although we are accustomed to think of Seilenos as an individual—the faithful follower of Dionysos in his varied adventures and triumphs—the earlier artists and story-tellers know nothing of such individualisation, but place before us Seilenoi as members of a class, and as a class not easy to distinguish from that of the ordinary Satyrs. Thus in the Homeric Hymn to Aphrodite (l. 262) we hear of Seilenoi in the plural, as lovers of nymphs, but with no individual characteristic. Even Pausanias⁵ remarks that those of the Satyrs who were advanced in age were called Seilenoi. On that compendium of sixth-century mythology, the famous François Vase, we have three Seilenoi in a group. There can be no mistake as to their identity, for their name is written above them. They have horse's legs, a peculiarity found, I believe, nowhere else in Attic art. It seems to have been a Macedonian type, being found on the coins of Lete.⁶

There was, however, in early myth an individual Seilenos, who was totally unconnected with Dionysos and his tipsy crew. This was the old Asiatic deity of flowing water,⁷

¹ In the Bronze Room, Table-case B.

² Baumeister, *Denkmäler*, Abb. 895.

³ E 768 in Table-case D of the Third Vase Room.

⁴ Campana, *Opere in Plastica*, 45.

⁵ I, 23, 6.

⁶ See Head, *Historia Numorum*, p. 177.

⁷ See Baumeister, *Denkmäler*, p. 1639, a valuable source, from which I have obtained much help in preparing this paper.

who, under the name of Marsyas,¹ became well known to the Greeks from his ill-fated attempt to outdo with his shrill flute the music of Apollo's lyre.² Pausanias³ gives an unpleasant idea of the effect on the hearer of the musical efforts of Marsyas when he tells us that the Phrygians attributed their triumph over the invading Gauls to the help afforded by that river-god, who kept the enemy at bay by the strains of his flute. Surely bagpipes must be meant. This fabled contest between Apollo and Marsyas may shadow forth the real struggle for ascendancy between the older and the newer theologies of Western Asia. It is curious to find that the top-heavy inebriate of classic art has been developed from what we might denominate a "total abstainer," an impersonation of the limpid stream. According to Pausanias⁴ the inhabitants of Pyrrhicos, in Laconia, were indebted to Seilenos for their water supply.

On the beautiful Ficoroni cista we see him comfortably seated by the gushing spring of which he is the guardian. Lucretius (VI, 1265) uses the Doric form "*silanos aquarum*" for "fountains of water." Nay even so late as Imperial times the figure of Seilenos was a favourite one for fountains, as may be seen at Pompeii. The water poured forth from the goat-skin bag carried by Seilenos on his shoulder, a skin at another time supposed to contain wine, when the old Phrygian water-deity had lost his independence and degenerated into the bibulous follower of Dionysos.

In one instance alone do we find Seilenos as an independent deity possessed of a temple in his own right apart from Dionysos, even after his perversion from abstinence to alcoholism. This was at Elis; and Seilenos was represented as receiving a cup of wine from the hands of Methe, the impersonation of drunkenness.⁵ Pausanias goes on to say that one might conjecture the tribe of Seilenoi to be mortal, on the ground of the existence of their tombs, one at

¹ Herodotus (vii, 26) has τοῦ Σιληνοῦ Μαρσύω. Cf., τὸν Σιληνὸν Μαρσύαν, Pausanias I, 24, 1.

² See Herodotus *loc. cit.*, and Xenophon *Anabasis* I, 2, 8. "The Satyr" mentioned in *Anab.* I, 2, 13, as having been caught by Midas, who had poured

wine into the fountain, would appear from the use of the article to be meant for Seilenos.

³ X, 30, 9.

⁴ III, 25, 2.

⁵ Pausanias, VI, 24, 6.

Pergamos, another "in the land of the Hebrews," of all places in the world. By such mortality we are reminded of the mournful cry, "Great Pan is dead."¹ As far as outward form is concerned, perhaps the lowest type of this rural divinity, a type almost brutal, is the Papposeilenos, whom Pollux² describes as τὴν ἰδέαν θηριωδέστερος, rather beastlike in appearance. Wieseler makes a strong distinction between ordinary Seilenoi and the Papposeilenos.³ This creature, with pointed ears and beard, creeps on all fours, and is covered all over with thick hair.⁴

More human, if more depraved, Seilenos appears in the joyous rout of Bacchic worshippers, now propped up by Eros or by youthful Satyrs, now with difficulty keeping his equilibrium on the back of a donkey,⁵ an animal which, however undignified in modern estimation, is assigned to him in virtue of his prophetic gifts, according to Baumeister, who compares Pindar's legend of asses sacrificed to the Hyperborean Apollo.⁶

Seilenos seems to have been sometimes regarded as a puny creature. At any rate Pausanias,⁷ speaking of a certain stone on the Acropolis of Athens, says it was only big enough for a little man to sit upon, and adds that the story was that Seilenos had rested on it.⁸

Again, in a Pompeian picture he is painted as of diminutive size. Compare the Seilenos on the sarcophagus from the Villa Casali.⁹ So, too, in a familiar way he came to be used as a support for lamps, balances, and such trifling gear.¹⁰

He is, however, on occasion, represented in a more dignified fashion, as in certain Pompeian pictures where

¹ Plutarch, *De Defectu Oraculorum*, XVII.

² IV, 142.

³ *Das Satyrspiel*, *Göttinger Studien*, 1847, zweite Abth. p. 591, "Dieser Papposilen ist . . . eine bestimmte, von den übrigen Silenen wohl zu unterscheidende Person, und von Papposilenen in der Mehrzahl . . . darf nicht die Rede sein."

⁴ See Gerhard, *Antike Bildwerke*, 56, 3.

⁵ See Clarac, *Musée de Sculpture*, pls. 138, 155.

⁶ *Denkmäler*, p. 1639; Pindar, *Pythia* X, 33.

⁷ I, 23.

⁸ So Helbig, *Wandgemälde* 397, "Silen auffällig klein gebildet."

⁹ Baumeister, *Denkmäler*, Abb. 492. Commenting on the smallness of the Seilenos attacking a nymph in plate 140 of the *Sammlung Sabouroff*. Furtwängler quotes two similar instances of equally small satyrs.

¹⁰ *E.g.*, a specially fine bronze at Naples, see *ante*, p. 15.

he tends the infant Dionysos,¹ or plays the lyre before the grown-up god.²

Nay, one's first impression as to the bronze head of Seilenos discovered at Colchester³ is its strong resemblance to Zeus, so full of majesty is it with flowing locks and beard.

A head of Seilenos in Thasian marble at Castle Howard was taken for a portrait of a poet, till betrayed (like Midas) by its pointed ears. It is a "very noble type, without any vulgar feature," says that excellent judge, the learned author of "Ancient Marbles in Great Britain."⁴

Our survey, then, of the development of the Seilenos myth has shown us how the primitive Oriental deity of the running stream has passed over, like others, to a post in the train of the joyous god of the vine.

Originally one of many, and hardly distinguishable from kindred rustic spirits in half-human form, he has assumed, like his brother of the wilds, Pan, a fixed and definite status as the lieutenant of the all-conquering Dionysos. Drunken reveller as he is, he still retains much of the wisdom and repute for hidden lore that has always marked the water daemon in every age and clime. As he dealt forth his theories of Kosmos to old Midas in the heyday of his Phrygian power, so, too, Seilenos lends an antique colouring to the verse of imperial Rome. Brought captive before the Phrygian monarch, he tells of the distant land beyond this Kosmos possessed by giant men,⁵ and winds up with the pessimist's moral, that it were better never to have been born.⁶

To Vergil's Chromis and Mnasylos the tipsy demi-god pours forth first his favourite cosmogony, and then a mass of old-world tales from the stones of Pyrrha to Philomela's speedy flight.⁷

Seilenos when recognised as the guardian and praeceptor of the youthful Dionysos, *custos famulusque dei*

¹ Helbig *op. cit.*, 371, 374-79.

² *Ib.*, 395. See also *Museo Borbonico* II, 31.

³ In 1845. See *Archæologia* XXXI, pp. 443-7, pls. xiii and xiv.

⁴ Michaelis *Journal of Hellenic Studies*, VI, p. 38.

⁵ Theopompos, quoted by Aelian, V H. III, 18.

⁶ According to Aristotle, quoted by Plutarch *Consol. ad Apoll.*, 27. Compare Servius on *Bucolica* VI, 13; and Cicero, *Tusculan Disputations*, I, 48.

⁷ *Bucolica*, Ecl. VI, 13-84.

Silenus alumnus, as Horace¹ calls him, assumes a position altogether distinct from and superior to that of the common herd of Satyrs, mere lovers of wine, women, and the rustic music of the flute. The marshals of Ptolemy's procession impersonated Seilenos; and on the wagon bearing the winepress he was represented as in command of the Satyrs.²

As Maclean remarks,³ he represented the "*crassa Minerva*" of the ancients, "Wisdom under a rough exterior."

In the Satyric drama Seilenos was one of the principal personages represented, not a mere member of the chorus. Thus in the *Cyclops* he is *father* of the Satyrs.⁴

In Idyllic poetry he plays a part akin to that of Teiresias in Tragedy, or, in Epic verse, of Calchas, who knew what is, what will be, and what was in former time.⁵

The comparison, therefore, of Socrates to Seilenos was not, after all, so very uncomplimentary to the Athenian philosopher, though, according to Athenaeus,⁶ Critobulus seems to have meant to be rude when saying Socrates was far uglier than the Seilenoi. This, of course, is very different from Plato's curious comparison of Socrates with the sculptors' Seilenoi.⁷

May not this supposed resemblance between Seilenos and Socrates have had something to do with the adoption of the head of the former as an amulet? This often occurs in *grylli* and other gems, "perhaps as passing for the emblem of universal knowledge."⁸ No doubt such figures were often intended to ward off "the evil eye"; and the rugged features, bald head, snub nose, and shaggy beard were all adapted to arrest the dreaded first glance. Yet it certainly is a little strange that these aged lineaments should have been so zealously perpetuated in the sensuous Hellenistic times, when the majestic Zeus and Hera, and Athena with her warlike virtue, were being

¹ *Ars Poetica*, 239.

² Athenaeus, V, 197E, and 199AB.

³ In a note on the above passage of Horace.

⁴ See lines 13, 82, and 269.

⁵ Homer *Iliad* I, 79. Cf. Vergil *Georgics* IV, 392, 393, and Conington's note thereon.

⁶ V, 188. See Xenophon, *Symposium* IV, 19, and V, 7.

⁷ *Convivium* 32, cf. 33 and 37. See also the Scholiast on Aristophanes, *Clouds*, I, 223.

⁸ King, *Antique Gems*, pp. 263, 264.

elbowed out by the deities of love and wine; when youthful beauty was sought above everything, and the shrewd old Hermes of the black-figured vases was replaced by a comely Ephebos, while Dionysos himself had to drop his former flowing beard. Possibly there was some idea of contrast; and certainly the clumsy old toper does well set off the lithe forms of Eros and the youthful Satyrs as they support his tottering steps. A similar reason may excuse the presence of another rugged patron of the woods and hills, Pan; though Pan's uncouth ugliness really requires no excuse, seeing that he is by nature half a goat.

But to return to our statuette. We have come to the conclusion that it represents Seilenos, or, more exactly, Papposeilenos. A further question, however, arises: is it supposed to be Seilenos himself or merely an actor representing him? A good deal depends on the date, and in the case of Cyprus dates are difficult to establish. There were, however, several successive waves of civilisation which passed over the island;¹ at first a primitive style of art akin to that of Hissarlik; then Egypt prevailed through the medium of Phoenicia. With the conquests of Sargon, Assyrian influence became paramount; a little later the Egyptians under Amasis conquered Cyprus; and then came the Persians, who in turn were supplanted by Cimon and his fellow Greeks. With these earlier phases of art our figure has nothing to do. It is not "Trojan," or "Mycenaeen"; nor is it Egyptian, or Phoenician, or Assyrian, or Persian, or early Greek. It is probably Græco-Roman; and therefore may very well be an actor, whereas if it had been of much earlier date it would hardly have been likely to be anything but an image of the demi-god himself.

Seilenos was more or less covered with shaggy, wool-like hair, as we see him in the famous Parian marble statue (No. 98) in the Bacchus-Saal of the Munich Glyptothek, or in the kneeling figure in terra-cotta acquired for the Berlin Antiquarium in 1886.² This hair was of his own growing.

For stage purposes, of course, a corresponding dress was

¹ See Papayannakis in *Gazette Archéologique*, 1877, p. 117 ff.

² See page 117, note 4.

required. This, according to the grammarian Pollux,¹ consisted of a shaggy tunic,² or shepherd's coat, of goat-skin or similar material—just, in fact, such a rough goat-skin clothing as one sees at the present day among the Greek mountains. This rustic outfit appears in the monuments in two forms, viz., either as a modern-looking suit of coat and trousers, as on a statue figured by Clarac;³ or as what nowadays are styled “combinations,” a tight-fitting covering for the whole person, shown on the vase from Ruvo, represented by Baumeister in Plate V of his *Denkmäler*, and on a krater in the Museo Gregoriano.⁴ This latter “combination” form comes nearest to our statuette.

We must next consider whether this shaggy covering of our little Seilenos is intended for the natural hide of the figure or for such a garment put on it. I think it is a garment, looking especially to the even distribution of the hair, and to its abrupt limitation at the extremities.

Is the figure, then, to be taken as the actual Seilenos himself, dressed in goat-skin, or as an actor playing his part? It seems to me that the tight-fitting dress is not such as would be ascribed to Seilenos in his natural state, but is rather a form of costume specially fitted for dramatic action, such a costume as we see in the famous Pompeian mosaic;⁵ while the drapery wrapped round the waist represents Pollux's *φοινικῶν ἱμάτιον*, or purple upper garment.⁶

It is true that, though there are huge ears, like those of a pig, there appears to be no mask, therefore the actor could hardly be on the stage, but must be supposed to be standing at ease behind the scenes. On the other hand, he would scarcely, under such circumstances, take the trouble to go on holding the basket of offerings. But we must not be too particular in the case of such a figure. The maker may well have combined the traditional features of Seilenos with the accessories familiar to him on the Satyric stage. Anyhow, in view of the Ruvo vase-picture before referred to, we can hardly be wrong in pronouncing our terra-cotta to be an actor playing the part of Seilenos.

¹ IV, 118.

² Cf., Aelian, *Varia Historia*, III, 40, Ἐσθῆς δ' ἦν τοῖς Σιληνοῖς ἀμφίμαλλοι χιτῶνες

³ *Musée de Sculpture*, tav. V, n. 874A, 221D.

⁴ Mueller, *Denkmäler* II, 397. See *ibid.*, 475 and 519-522. Compare the bas-relief *Museo Borbonico* II, 11.

⁵ *Mus. Borb.* II, 56.

⁶ *Loc. cit.*

FEATHERS AND PLUMES.

By VISCOUNT DILLON, F.S.A.¹

The list of plumes and feathers to which I have to call your attention is to be found in the Audit Miscellanea, in the Public Record Office, and enumerates the objects of this class in the Royal Store, at the time when S^r. George Howarde took over the office of the Armoury. It will be seen to include plumes and feathers, both for military and civil wear, and besides the richer sort are many which from their numbers must have been for use by the Royal Guards. I shall presently note some of the instances of use of these plumes, &c., and also some of the very many references to the fashion of wearing them as mentioned by the dramatists of the period. But I may here remark that, as will be seen from the richness of some of these ornaments, and from the prices paid for ostrich feathers, it is clear that all the plumes and feathers we see in pictures and engravings were not costly feathers. Of this we have confirmation in a note to Von Leber's excellent description of the Wiener Zeughaus, 1846, where he tells us that according to Maximilian's orders the light cavalry, as we may suppose the "Halb Speisser" to be, was to have feathers made of silk to stick in his head piece. Ostrich feathers, Von Leber remarks, were too fragile and expensive, and the imitation was made of silk or wool wound tightly between twisted wires, like our modern tobacco pipe cleaners. Von Leber further remarks that such woollen helmet plumes are occasionally found in old armouries. Another feature to be remarked is the "Dragon of red feathers," and perhaps also the "Pellicane of white feathers." These would be rather puzzling to recognise had we not the drawings in the armourer's book at Madrid of Charles V.'s time. Among the plumes shown as existing there is the fine double-headed Imperial Eagle, of which a copy is given in Jubinal's work on the Armeria Real.

¹ Read at the Monthly Meeting of the Institute, March 4th, 1896.

It will be seen that feathers of all colours appear in the inventory, and among them "Byrdes of Arabye," which we may take to be the "Birds of Arabia" or rather Birds of Paradise in the Tower Inventory of 1629.

One or two words used may need a note of explanation: *Langettes* are the long tongue-like feathers springing from the bushy plumes; *Troches* are branches or clusters, like the points on the top of a stag's horn.

The long hanging plumes of the sixteenth century appear to have been fixed to a metal button which was introduced into the larger part of a keyhole opening in the crest-ridge of the helmet; the neck of the button then passing into the narrow part of the opening, the weight of the plume would keep it in position. The standing plumes and horse plumes would be fitted into plume pipes, often richly ornamented, and fixed at the side or back of the helmets or morions as seen in pictures.

The earliest distinct representation of a plumed helmet that we have met with is the figure of one of the King's attendants on the occasion of young Henry of Monmouth receiving the accolade at the hands of his cousin Richard II. during the Irish campaign of that King. The representation is in one of the exquisitely fine miniatures of the Harleian MS. 1419, a French metrical account of the deposition of Richard. The MS. was executed very soon after 1400, and from the loose surcoats and other details of costume, it must be considered a French work. The King and young Henry are both mounted, and one of the attendants has a white plume springing from the apex of his pointed bascinet. Some of the civilian figures in the MS. also have single plumes in their caps, but none of those in armour, nor have the mounted archers² in Plate IX. any plumes.

The next representation in point of date of this helmet plume is the portrait of Robert Chamberlain, esquire to Henry V., and one of the benefactors of St. Alban's Abbey, in the Register Book of which, Cottonian MS. Nero DVII., this portrait occurs with the date 1417³. The plume

¹ Engraved in *Archæologia*, Vol. XX., Pl. 2.

³ Engraved Strutt, *Regal and Ecclesiastical Antiquities*, Pl. LIX., Fairholt, p. 207. See *Archæologia*, Vol. XX.

² Planché, in his *History of Costume*, has omitted the bows.

here springs from a pipe at the apex of the helmet. In Harl. MS. 4431, a French MS. of Christine de Pisan, of the early part of the fifteenth century, *c.* 1420, we have a good example, on fol. 114, of a knight's plume. Hewitt has engraved it in his *Ancient Arms and Armour*, III, p. 389.

The fashion of enriching feathers by the addition of jewels, pearls, &c., attached to the pen was much in vogue in the fifteenth and sixteenth centuries, and as examples we may mention a figure in Rome's *Life of the Earl of Warwick* (Cott. MS., Julius E. IV., executed about 1487), where a figure wears such a feather in his round *salade* or *chapel de fer*. In the *Romance of the Rose*, Harl. MS. 4425, are numerous examples of this fashion, and very large feathers are seen similar to those in the hats of the attendants on the two Sovereigns at the Field of Cloth of Gold¹ as represented in the bas-reliefs at the Hotel Bourgtheroulde at Rouen. In the Hampton Court picture of "The Battle of the Spurs," large plumes of feathers are seen in many of the helmets, but none of the horses wore top-nets. Of course German pictures of woodcuts of the time furnish very many instances of the extreme to which the fashion was carried both in civil and military costume.

Among Henry VIII.'s jewels, in 1530, according to a list in the *Domestic State Papers*, is "an ostrich feather garnished with four small rubies."²

The notices in *Hall's Chronicle* of feathers ornamented with spangles, &c., are very numerous, and one especially may be quoted where, describing the jousts held on the 13th February in 2 Henry VIII., of which there is such a magnificent representation in the illuminated Roll at the Herald's College, Hall tells us that the King's horse had on the front of the chanfron "a goodly plume set full of musers or trimbling spangles of gold." This word *muser* has not been met with elsewhere, but evidently was the special name for what are called *paillettes* in French and *Flitter* in German.

Hall, under the year 1520, says "the feather was black and hached up with gold." This ornamentation of the whole feather was of old date, as we see in John of Gaunt's

¹ See also "Romance of the Roses," Harl. MS. 4425, and *Vraie Noblesse*, Reg. 19, Chap. VIII.

² As late as 1648 Sir Edmund Baron, Bt., bequeaths to his great niece "my feather sett wth diamonds." Bury Wills.

badge of an ostrich feather ermine as shown in *Willement*, p. 27.

As to the prices of feathers, *temp.* Henry VIII., the following are interesting :—

In 1510 ostrich feathers for the bonnets of the King and Lords are charged 6 tops at 12*d.* each.

In 1511 12 ostrich feathers used in the Royal mummary on Twelfth Night are charged 28/-.

In 1516 36 ostrich feathers at 1/- each were bought at "The dagnar on London Bridge" for the Royal revels.

In 1513 when Henry, Earl of Northumberland, went to France to the siege of Turwin he took 60 ostrich feathers, 30 of white and 30 green ("for My Lord's captains and gentlemen"), each of 2 feathers, also 100 white feathers for my Lord's guard.

In 1518 Gerard van Hartell, plumer of the King's feather, received 6, and in the following year £34. 16*s.* 8*d.* was paid to the same for plumes and feathers for the King, and at the King's funeral Edmunge Button, feather maker, appears as receiving 4 yards of black cloth as livery mourning.

Good examples of the large plumes on the helmets and top-nets on the horses' heads will be seen in the Great Seals of Henry VIII., Edward VI., and James I. Top-nets occur on the Seals of Richard III. and succeeding kings till Charles I., whose horse's head comes so close to the border as not to allow of this ornament. But top-nets are also seen in one of Edward VI.'s half-crowns, and some of the crowns and half-crowns of Charles I.

A very good example of the langettes, or long detached feathers, will be found in the figure of St. George engraved on the breastplate of the fine suit of Henry VIII.'s armour, now in the Tower of London, and presented to that King by the Emperor Maximilian in 1514. Also in the votive picture of "St. George and the Dragon" with Henry VII. and his family now at Windsor, and described by the late Sir Geo. Scharf, K.C.B., *Arch.*, Vol. XLIX. In this picture also is a good instance of the top-net.

At the banquet on Shrove Tuesday, 1st Henry VIII., Admiral Sir Edward Howard and Sir Thomas Parre came in dressed "after the fashion of Prusia or Spruce, and wearing on their heads, hats after dauncer's fashion, with feasauntes fethers in them."

Soon after this, when the Ambassadors from the King of Arragon and Castile came to the Court, Henry VIII. appeared armed and in a rich dress of velvet, and with a great plume of feathers on his head-piece "that came down to the arson of his sadell."

Among "stuff wanting in 1553" in a list of stuff remaining unspent at Westminster, are:—

- 4 top-nets of feathers for horses,
- 2 horse tops of red and yellow feathers,
- 1 top for a head-piece of red and yellow feathers.

Among the stuff delivered to the Lady Jane, usurper at the Tower, a cap of black velvet with a white plume, laced with aglets enamelled, with a brooch of gold.

Among the sundry stuff borrowed by Sir Andrew Dudley, knight, for the furniture of his pretended marriage to the Lady Clifford, 7th Edward VI., are 51 ostriche feathers.

In Clarendon's *Difference and Disparity between the Estates and Conditions of George, Duke of Buckingham, and Robert, Earl of Essex*, reference is made to "the glorious feather triumph" of the latter, when he caused "two thousand orange tawny feathers, in despite of Sir Walter Raleigh, to be worn in the tilt-yard, even before her Majesty's own face." Clarendon gives no date for this, nor have I been able to find other mention of this event.

I will now give some instances of reference to feathers and their fashions from the dramatists.

In Elizabeth's time feathers in civil and military head-pieces appear to have been most general.

Lilly, in *Campaspe*, 1591, laments the "gloves worn in caps instead of plumes in graven helmet," but he could hardly have criticised the gallant Earl of Cumberland, whose portrait with his Royal Mistress' glove in his hat still exists at Oxford and is engraved by Lodge.

At the Queen's death there was a charge of £47 for "plumes of feathers for ye bedistead where the corpes was

placed in, for the horses of estait and chariott horses," and in the engraving of the funeral procession in *Vetusta Monumenta* the horses are seen having not only top-nets, but also plumes on the cruppers.

As to the feathers on the bedsteads, many examples of such remain to this day, as for instance on some of those at Hampton Court. In the funeral procession none of the mourners wear feathers in their caps.

The custom till a few years ago of having a board with six or eight large plumes on it, the whole being carried on an attendant's head, probably dates well back into the sixteenth century. It is said that a full set of these feathers as carried in this century was worth £200-£300.¹

It is difficult to say whether feathers preceded or succeeded cable hat bands, or whether they were in vogue together.

In the robes of the Order of the Garter we may trace the growth of the plume, which seems to have kept pace with the increasing height of the cap or hat of later times.

In Peele's *Polyhymnia*, or description of the jousting held on the completion of the 33rd year of Elizabeth's reign, each knight had his lance, staves, horse trapper, and his plume of a distinct colour, in which also his attendants were clad.

In 1569 Bishop Tanner, in a sermon preached at Court, foretells to the ladies the speedy downfall of their "high plummy heads."

In 1604, in Marston's *Malcontent*, we have :—

"What a beast was I, I did not leave my feather at home."
and—

"This play hath beaten all young gallants out of the feathers;
Black friars hath almost spoiled Blackfriars for feathers."

And yet again :—

"No fool but has his feather."

In Friar Bacon's *Prophecy*, 1604, contrasting old fashions with new, we have :—

"Then cloakes were for the raine and feathers but for beddes.

* * * * *

Now cloaks are for the sunne and feathers for the winde."

¹ Lancaster.

In Dekkar's *Honest Whore*, Fustigo says :—

“I must have a great horseman's feather, too.”

In 1605, in *Eastward Ho*, by Ben Jonson, Chapman and Marston, the dulness of town is expressed by “Not a feather waving nor a spur gingling anywhere,” and the constable says, “They say knights are now to be known without feathers like cockerels by their spurs.” Evidently the fashion in spurs was on the increase, and that of feathers temporarily in the shade.

But Rowland in his poems makes many references to the latter.

In *Humour's Looking Glass* he speaks of a knight who “had his hat display a bushie plume,” and of a lady he says :—

“What feathered fowl is this that doth approach,
As if it were an estridge in a coach,
Three yards of feather round about her hat.”

In his *Spy Knaves* a dandy says to his servant :—

“And 'point the feather maker not to faile,
To plume my head with his best estridge tail.”

In describing how someone took the common hangman for a person of importance, he says :—

“His hat was feathered like a lady's fan,
Which made this gallant think him some great man.”

In 1606, when Christian IV. of Denmark came to visit his royal brother-in-law, some of his knights wore “strange feathers of rich and great esteem, which they called Birds of Paradise.” It is evident that though, as the inventory shows, such birds were already known to us here, they were to the northern races objects of wonder.

In 1610 Ben Jonson, in *The Alchemist*, says :—

“Whom not a Puritan in Blackfriars will trust so much as a feather.”

This sentence, like that in Marston's *Malcontent*, already quoted, refers to the fact that in the sixteenth and early seventeenth centuries the feather makers appear to have lived chiefly in Blackfriars, just as glass workers inhabited Whitefriars, and probably for similar reasons, namely, foreigners pursuing these trades having first settled in these localities. Ben Jonson, in his *Bartholomew Fair*,

1614, and Randolph, in his *Muse's Looking Glass*, 1638, as well as Beaumont and Fletcher in *Monsieur Thomas*, 1639, refer to this locality as the home of these trades. Ben Jonson also notes the fact that most of the feather makers were Puritans, and that renders the theory of their being foreign refugees very probable.

In 1611, in Middleton's *Roaring Girl*, Mrs. Tilt-yard asks:—

“What feather is't you'd have sir?
These are most worn and most in fashion.
* * * *

I can inform you 'tis the general feather.”

To this the dandy replies that he wishes to see a spangled feather, and afterwards he is told that he looks like a nobleman's bed post. These spangled feathers were evidently like those already noticed in Henry VIII.'s time.

In Sir John Davies' epigrams of this period are frequent notices of feather fashions—

“But he doth seriously bethink him whether
Of the gulled people he bee more esteemed,
For his long cloake or for his great blacke feather.
* * * *

Besides this muse of mine and the blacke feather,
Grew both together in estimation;
And, both grown stale, were cast away together.”

In 1615, in Beaumont and Fletcher's *Cupid's Revenge*, to

“This feather is not large enough,”

it is replied,

“Yet faith 'tis such an one as the rest of the young gallants wear.”

Fitzgeffrey, in his *Satires*, 1618, mentions that

“Most younger brothers sell their lands to buy
Gurganian plumes like Icarus to fly;”

and asks why he ought

“To rectifie my fore-top, or assume
For one night's revels a three-storey plume.”

In another place he describes a spruce coxcomb, who uses a looking glass set in a tobacco box or dial “that he may see which way his feather wagg.”

Minshew, in 1627, writes: “Natural ideots and fools have and still do accustom themselves to wear in their

cappes cocke's feathers, or a hat with a necke and head of a cocke on the top."

In 1629, in Francis Lenton's *Young Gallant's Whirligig*, we have—

"The estridge on his head with beaver rare."

Again, in Rowley's *Match at Midnight*, 1633, Blackfriars is referred to twice—

"She that dwells in Blackfryers, next to the sign of 'The Fool Laughing at a Feather.'"

and—

"With one Mistress Wagg in Blackfriars, next to the sign of 'The Feathers and the Fool.'"

In *Amanda*, 1635, is:—

"As light as thou thyself doth hang thy feather."

Also, in *Love Restored*, 1640:—

"Now there was nothing left for me that I could presently think on but a feather maker of Blackfriars. . . . But they all made as light of me as of my feather, and wondered how I could be a Puritan, being of so vain a vocation."

In the same year, in Wit's *Recreations*, is—

"What, doth my feather flourish with a grace?"

Taylor, the Water Poet, speaks of—

"A beaver band of feather for the head,
Prized at the church's tythe, the poor man's bread."

As might be expected, the allusions to plumes and feathers by Shakespeare are very numerous:—

In *Richard II.* we have the Duke of York saying, "I come to thee from plume-plucked Richard."

In *The Taming of the Shrew* Petruchio's lackey is described as having "an old hat and the humour of 40 fancies" pricked in it for a feather.

In *All's Well that Ends Well* the Clown speaks of "delicate fine hats and courteous feathers."

In *Love's Labour Lost* the Princess asks, "What plume of feathers is he that indites this letter?"

In *Henry V.* allusion is made to the military plume: "There's not a piece of feather in our host: good argument I hope we shall not fly."

Coming nearer to the date of the Inventory, we have, in *Henry VIII.*, the severe censure of the fashion by S^r. Thomas Lovell, "These remnants of fool and feather that they got in France," alluding to the expensive outfits at the Field of Cloth of Gold.

In *Hamlet* we get a hint as to the extent of the actors' wardrobe in those days, where, after declaiming the verse "Why let the stricken deer go weep," &c., the Prince says to Horatio, "Would not this, sir, and a forest of feathers, if the rest of my fortunes turn Turk with me, with two Provincial roses on my razed shoes, get me a fellowship in a cry of players, sir?"

Of the occurrence of feathers in female costume at various periods much might be written. The Duchess of Devonshire's ostrich feather, an ell and three inches long, presented to her by Lord Stormont in 1774, introduced the fashion for these ornaments, and considering the rigour with which feathers are required to be worn at Court by all ladies now-a-days, it is curious to find Walpole, in 1781, in a notice of a decree against high heads, saying that "though the Queen never admitted feathers at Court, not a plume less was worn elsewhere."

It is worth noting that "crane feather doublets" and other articles of dress so qualified, which often occur in mediæval inventories, do not mean doublets, &c., of feathers, but of the delicate grey colour familiar to us in the plumage of the demoiselle crane. Yet there are some instances of actual feathers being used, as in the case of Francis I.'s reception of the English Ambassador at Paris in December, 1518, when the King wore a robe of cloth of silver figured with beautiful flowers, the lining being of Spanish herons' feathers. Of course, in Mexico and in some of the Pacific Ocean islands, cloaks of feathers were worn by persons of high station.

In the East the herons' plumes were specially affected by the Sikhs for their helmets in preference to any other feathers. The chief attendants of Solyman, when besieging Rhodes, are mentioned as wearing single ostrich feathers in their caps.

During the First Empire Napoleon introduced the use of plumes in the Court head-dresses of his new nobility, and after 1815 the Legitimists and Orleanists often referred

to the ladies of the late creation as “les dames à plumes.”

The use of the expression, “to show the white feather” as a term for cowardice, is said to have its origin in the fact that no game cock has a white feather. When at Ivry Henry IV.’s white cornette, or white flag, temporarily disappeared, owing to its bearer being wounded, the King, pointing to the white panache in his helmet, made his famous speech, “si la cornette vous manque, voici le signe de ralliement.” The white cornette being the peculiar right of the commander in the French army, the King, whose horse also had a white feather on its head, utilized the idea of white as indicating the whereabouts of the supreme power in the battle.

In the English army, from 1800 to 1829, the infantry regiments wore white and red plumes in the chaco with the exception of the 5th Fusiliers, who had a white one, and when in the latter year the general plume was changed to white, the Old and Bold who had won their white plumes in 1778 at St. Lucia, where they took them from the caps of the French Grenadiers, were permitted to change their plume to red and white, as they now wear it.

In 1821–1823 the Household Cavalry wore bearskin caps with white or red feathers according to the regiment, up the side and over the top of the fur.

Audit Miscellanea.

This byll Indented made the xx Maye
the fourth yere of the Reigne of o^r Souraigne Lady Elizabeth
by the Grace of God Queen of England
ffrance and Ireland defendo^r of the faith, &c., witnesseth that S^r
George Howarde knight
M^r of the Queene her Ma^{tie} Armory hath receyved of George
Brydeman Keep^r of Her Highness Pallace
at West^r by vertue of a warrante dated the xviith of Maye the yere
abovesaid These

Plumes of ffethers and other ffethers p^ticularly hereafter ensuying,

That is to saye :

¹ffust one greate Plume of white Osterige ffethers for a helmett
richely garnessed with pasamayne and frenges of Venice golde
and with greate spangells of golde and smale spangells of copper
having a topnett of Hernes ffethers.

¹ These items occur in Harl. MS. 1419, A.B., a list of Henry VIII.’s effects at his death, 1547.

- Item, two large Plumes for horses with two faire Langettes the
 pece
 of white ffithers likewise garneshed with like spangelles Topnettes
 and hearons ffethers.¹
- Item, nyne Topnettes for Horses foure purple and yellowe and fyve
 white and purple richely garneshed and trymed as is
 afore said the same lacking sundrye of theyre garnisshe-
 ments.²
- Item, sixe greate Plumes for Helmettes of Ostrenge ffithers, viz. twoo
 of purple and white, two of red and yellowe and twoo of
 purple and yellow richely garnissed w^t passamayue and
 frence of venice golde and greate spangells of golde and
 small spangells of copper.
- Item, two plumes for Morions thone of purple and white and thother
 of purple and yellowe garneshed and trymed as aforesaide.
- Item, nyne olde ffethers being small topnetts for horses, viz. thre all
 redde, two blake, twoo grene, oone bleue and purple and
 blake and one other like ffether being for a mannes head
 peace alle redde smally garnissed.
- Item, foure faire Plumes to garnishe Hattes rounde aboute viz. oone
 all white, oone redde and yellowe, oone purple and yellowe
 and oone purple and white richely trymed with
 passamayne and frence of venice golde the passamayne
 being garneshed wth pearle and the frence with spangells of
 golde.
- Item, seven faire longe doble ffethers for hattes viz. two all white,
 two purple and white, two purple and yellow, and one red
 and yellowe, garnished with passamayne and frence of venice
 golde evry of them garneshed wth troches of seede pearle
 furnished wth ple hanging at the toppes and with spangells
 of golde.
- Item, oone lesse double ffether for a hatte all white garnished wth
 venice golde.
- Item, twoo lesse ffethers for Hattes all blake thone garneshed with
 damaske golde alongest the stalke like fryers knottes and
 collettes w^h countersette stones and richely garneshed w^t
 fayre ples and thother garneshed w^t frence of venice
 golde trymed w^t seede pearle.
- Item, twentie and foure small ffethers for Hattes viz. sixe white, sixe
 blake, sixe purple and sixe grene, oone of every of the
 saide ffethers garneshed with small seede pearle and the
 rest garneshed and trymed with venice golde.
- Item, twoo fayre ffethers for Cappes thone purple and yellowe and
 the other red and yellowe garneshed with passamayne and
 frence of venice golde and trymed with troches of pearles
 hanging at the toppe with spangells of golde greate and
 small.
- Item, oone fayre Hearon's ffether trymed at the staulké w^t venice
 golde and pearle.
- Item, two Byrdes of Arabye.
- Item, nyne single ffethers purple.

¹ There were two of these in 1547.² There were six of red also in 1547.

- Item, tenne like ffethers redde.
- Item, a boxe wherin is pearle passamayne and frence greate and small spangells of golde to garnesshe ffethers.
- Item, oone plume of redde and yellowe ffethers for a Hufkyn garnessed with passamayne lace of venice golde and sett with greate spangells of silver guilt and small spangells of copper.
- Item, oone rounde white ffether for a Cappe.
- Item, twoo Plumes of ffethers white garnessed with red Rooses and venice golde and spangells viz. thone being for a horseman thother for a foteman.
- Item, oone Dragon of red ffether.
- Item, oone Plume of white ffether having thre Langettes.
- Item, thre lesser Plumes of white ffethers w^t horse toppes.
- Item, oone like Plume of redde ffethers with a horse toppe.
- Item, oone like Plume of blew ffethers with a horse toppe.
- Item, oone like Plume of yellowe ffethers with a horse toppe.
- Item, twentie and thre single russett ffethers.
- Item, thre hundreth and foure score Toppes for hedde peeces for men all of blewe ffethers.
- Item, oone hundreth and nynetene toppes for hedde peeces for men all of red ffethers.
- Item, oone hundreth and seventene like toppes for horses of red ffethers.
- Item, thre score and eightene Toppes for hed peeces for men all of red and yellowe ffethers.
- Item, sixetye and foure like Toppes for horses all redde and yellowe.
- Item, two olde horse Toppes thone yellowe and thother blewe.
- Item, foure Plumes of red ffethers thre of them having fyve langettes apece and thother having sixe langettes.
- Item, thre Plumes of purple and white ffethers with thre horse toppes.
- Item, oone Plume of blewe and red not holyc furnessed.
- Item, thre olde Plumes of blake ffethers unfurnyshed.
- Item, thre like Plumes viz. two of blak, purple and white ffethers and thother of russet, purple and white.
- Item, oone Plume of blew and white ffethers.
- Item, thre Plumes of purple and yellowe with thre horse toppes.
- Item, oone Plume of grene and white.
- Item, seven Plumes and sixe horse toppes of red and yellowe ffethers thone Plume broken.
- Item, oone Plume of blewe and blake.
- Item, thre Plumes of blewe and sixe toppes for horses.
- Item, oone Plume of white ffethers for a hufkyn garnessed with passamayne of venice golde and sett wth greate spangells of golde and small spangells of copper.
- tem, oone Plume of grene with a top for a horse.
- Item, a Pellicane of white ffethers.
- Item, nyne Langettes with a horse toppe of white.
- Item, thre Langettes redde.
- Item, two Toppes for hed peeces of blewe ffethers.

Item, thre hundreth and foure score Toppes for Horses all of
bleue ffethers.

In witness whereof the said Sr George
Howarde hath to this psent byll Indented
sette his hande the daye and yeare first
above written.

(name has been cut out.)

In 1629 The Tower Inventory includes :

Plumes of ffethers of sondry Cullor c. ix, xliiii.

Plumes of ffethers for horsemen, xxxiii.

FURTHER GREAT STONES, GOZO, EXPLORED IN 1893.

By A. A. CARUANA, Director of Education.

GREAT STONES TAL-QAGHAN.

The vestiges of another Ġgantia similar to that of Xaghra have been discovered close by the road leading to Qala, in the territory familiarly known as *tal-Qaghan*, within the area of a large tenement the property of Saura Hospital.

These ruins lie just between the lower extremity of the Nadur Hill and the plain of Ghain-sielem and Qala, the two villages nearest the sea, within fifteen minutes' drive of the little cove and bay of 'Mġar. Their state of preservation is even worse than that of the remains at Cordin Hill, Malta. Until very lately, a considerable use was made of these stones for building small houses in the neighbourhood and for walling in the newly-cultivated lands at Ghain-sielem.

The remains of this cyclopean monument still standing *in situ* consist of seven stones forming a portion, 52 feet in length, of a northern wall marked *a, b*, in Fig. 1. Plate I. This wall formed the eastern half of an exterior boundary which girded a vast interior area, the western portion having been entirely removed. Eight great stones forming the western half, 50 feet long, of the southern wall of the boundary marked *c, d*, are also preserved.

The northern wall *a, b*, on the rocky ridge of a valley to the north, was evidently the rear; and the southern wall *c, d* on the plan, which slopes gently towards Ghain-sielem and Qala, was evidently the front of the enclosure.

The entrance, *e*, to the area enclosed by these great stones was in the middle of the front wall, looking to the sea of 'Mġar.

The preservation of these remains *in situ* assists us in completing the configuration of the whole exterior boundary, shown on the plan by hatching; the western extremity *c, d*, of the southern wall is curved inward in the form of an

GREAT STONES AT GOZO.



FIG: N° 1.

AT "TAL-KAGHAN."



FIG: N° 2.

AT "TA-MREZBIET."

apse, and its trend clearly shows its continuation so as to meet the northern wall at *a*. The depth *f*, *g* of this right apse is 33 feet. The apsidal form of the western half and the depth of its apse being once known, the typical configuration of the eastern half and the depth of its apse can be easily obtained. The east end, *b*, of the northern wall marks the beginning of the bend of the eastern apse, which may have had the depth *h*, *i*, of the opposite apse and may have been prolonged to *k*, to enclose the front of the interior area. The extreme length *f*, *i*, of this area, from east to west, including a middle passage between the two opposite and lateral apses, is about 160 feet; its width, from front to rear, is 90 feet; its area about 1,600 square yards, nearly double that of Ġgantia.

No traces of the original internal arrangement of the enclosed area have been discovered. From what we know of other similar Maltese great stones, we may presume that several suites of elliptical chambers and recesses in juxta-position like those of Cordin completed the interior arrangement. The structure, entirely of quasi-rude stones, like those of Ġgantia and Cordin, reveals the same primitive age.

In connection with these remains there are three vast natural caverns, probably used as cattle-sheds and sheep-pens; and the remains of another megalithic enclosure in a field close by but about which nothing can be determined. It is probably the remains of a fane collateral with the principal one, like those observed in Ġgantia at Xaghra, Gozo; and at Cordin and Haġar-Qim, in Malta.

TA-MREZBIET.

HAGRA WIEQFA AND HAGRA AT SANSUN.

In a tenement called ta-Mrezbiet, by the road Ben-ghasi, within the limits of the same village of Ghain-sielem, at a very short distance from tal Qaghan, another smaller but very interesting megalithic enclosure was discovered. It is more regular in form and nearly complete, but of different construction. The configuration is certainly oval as shown in Fig. 2, Plate I. The tall stones are all erect like those of Haġar-Qim, hence they are called by the

natives *Hagar-Wiegafs*, and form the interior facing to the enclosure. The portion preserved *a, b, c, d*, is the western half of the original structure. The eastern portion *a, b¹, c¹, d*, shown in hatching on the plan, has been entirely removed, but the configuration and dimensions of the whole enclosure are very easily recovered by means of the western half still remaining *in situ*. The length of its internal area, from the western apse to the one opposite, is 70 feet; its width is 24 feet. At the northern extremity of the western apse there is, *e*, what was apparently a passage to another chamber or recess, of which no relics have been found.

Plate II, Fig. 1, represents a rude monolith 12 feet high and 7 feet broad tapering to 3 feet at the top, called *Hagra-wieqfa* by the natives. This monolith stands erect *in situ* in the field ta-Grugna, within the limits of Qala, the property of Mrs. W. Strickland.

Fig. 2 is a drawing of il Hagra ta-Sansun, in the rural tenement ta Ghayn-Xeiba of the district ta Ġnien-Mrik, to the north-west of the Ġgantia in the Xghara village. It is another single monolith, at present 20 feet long, 14 feet broad, and 7 feet thick, but originally much longer and thicker. It was discovered in August 1893. It was propped at its lower extremity by huge stones when standing erect, but at present is lying down in the above-named field resembling the Kerland demi-dolmen.

These apparent menhirs are not the only great and tall stones hitherto found singly in our islands. They are found scattered in the vast plain and valley of Xgharet Medewiet near the Melkart remains at St. George's Bay. They had led Quintinus Æduus, the Auditor of Grand Master L'Isle Adam in 1532, to believe that the temple of the Tyrian Hercules in that spot had a circuit of three miles.

A great number of these single erect monoliths and ringing stones are also met with in the waste il-Guiedi between Mnaidra and Hagar-Qim, and in the inland district surrounding them; on the south coast of Malta in the lands near Ghar Hassan; and in the valley of San Dimitri, Gozo. They resemble so-called druidical stones in appearance, but with such stones our megalithic monuments have no connection whatsoever.

SINGLE ERECT MONOLITHS
GOZO.



FIG. N° 1

HAGRA WIEKFA.



FIG. N° 2.

HAGRA TA SANSUN.

I surmise that if the lands in the vicinity of these single monoliths were explored, the vestiges of the original enclosures to which they pertain would be met with under the soil. They, in fact, present indications of mason work connected with other buildings which have been destroyed.

“KILLING” PITS.

By J. R. MORTIMER.

“Killing” Pits are some mysterious excavations on the north-west brow of the Goathland Moor, between Scarborough and Whitby, about $1\frac{1}{2}$ miles south-west of Goathland Chapel. Of these and others much has been written at various times, and by various authors; and various have been the views given to account for them.

By early writers on antiquities these and others similar have been described as Pit Dwellings and the sites of British villages.

Professor Phillips thus writes:—

“In several places these pits are associated in such considerable numbers as to give the idea of a village. Such are the Killing Pits, on the gritstone hill, less than one mile south of Goathland Chapel; the pits in Harwood Dale; those which encircle Roseberry Topping; besides many on the site of Glaizdale, and in other situations.”

The following abstract is from a rather lengthy paper on Pit Dwellings, by the Rev. J. C. Atkinson, Vicar of Danby (now Canon of York), in the *Gentleman's Magazine* for 1861. After having described several clusters of pits, he adds:—

“The Goathland settlement occupies a space of 600 feet by 150 feet, but the pits are not so thickly clustered as in that last-named. The name by which this site has been known, time out of mind, is ‘Killing Pits.’”

He also remarks:—

“Besides these, several others might be named.”

The above extract clearly shows that Canon Atkinson, like most other archæologists, firmly believed in the habitation theory. Afterwards, however, he changed his views, and in a letter to the *Whitby Times*, April 6th, 1889, strongly combats the habitation theory; and in referring to the “Killing” Pits, says that,

“in nearly every case, if not in every case, the so-called British villages were neither more nor less than the traces left by mediæval iron mining.”

¹ *The Rivers, Mountains, and Sea Coasts of Yorkshire*, p. 203.

He also gives from old documents three other instances of “ Killing ” Pits in the neighbourhood of Danby, viz., Hither Killin Pits, Far Killin Pits, and the Lower Killin Pits.

Again, in another letter to the same paper, May 3rd, 1889, Canon Atkinson further supports his belief that the Killing Pits on Goathland Moor were the shafts or pits sunk for the purpose of extracting ironstone.

Lastly, in his *Forty Years in a Moorland Parish*, published in 1891, page 170, he still supports this view ; and at page 174 he adds :—

“ For my own part, if only the opportunity could be achieved, I should go in for an examination of any of these so-called British villages with very definitely preconceived opinions as to what should be looked for and the way in which the looking for it should be conducted. And for one thing, I should have no more doubt about finding horizontal operations than about the fact that the pits were there. If I did not find the ironstone, it would be because it had been removed.”

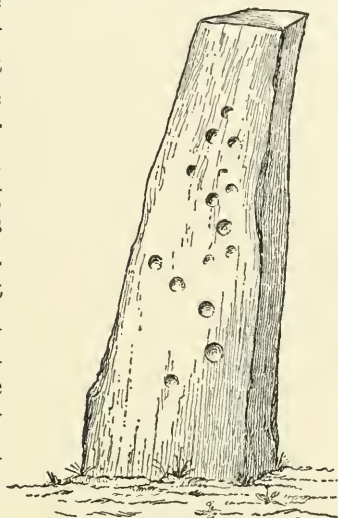
This seems strong faith, akin to that of an antiquary of a past age, without the least attempt to prove it by the simple application of the pick and shovel.

From the several occurrences of the name of “ Killing ” Pits given by Canon Atkinson from old documents, it seems almost certain that their name was derived from Kiln and Pits—in other words, pits from which material had been obtained for the kiln, such as ironstone for smelting, or, it might be, in some cases limestone for burning into lime. This name would be most natural and expressive, and could hardly have had any other meaning. But then the name might often have been given to similarly-shaped old pits which had not been formed by quarrying for the kiln, and possibly the pits under discussion are an instance of this.

June 10th, 1892, in company with the Rev. E. M. Cole, of Wetwang, I visited the “ Killing ” Pits. From descriptions of them, and impressed with antiquarian tendencies, we expected they would be found uniformly circular and regular in size, just such as we had been led to think the remains of sunk dwellings of a circular form might be. In this, however, we were undeceived. These pits are very irregular, both in shape and size, and also in arrangement, and we unanimously agreed that few,

if any, of them were the remains of habitations. They measured from 3 feet to 20 feet in diameter, and from 1 foot to 5 feet in depth; and we thought it probable that none of them had originally been more than 10 to 12 feet in depth. Pits most certainly they are; and probably many of the shallow ones were made, at various periods, in obtaining, for different purposes, the slabs of gritstone which were near the surface, and which would be more easily procured at this outcrop of the beds than in most other places on the moors. Most of the slabs of gritstone which are found in the neighbourhood of "Killing" Pits vary from 6 to 12 inches or little more in thickness, and have been no doubt obtainable in all sizes up to 12 and 15 feet square. Were not at least some of these pits excavated for the purpose of removing such slabs, to be cut into the tall boundary stones, several of which we have observed standing on the moors, and which were probably at one time more numerous than now? They are of the same texture as the gritstone slabs remaining *in situ* at "Killing" Pits. Again, several of the pits may have been made by the Ancient Britons in quarrying to obtain the side and cover stones to form the burial chambers (kistvaens) for the reception and protection of their dead placed in the tumuli of that neighbourhood. For such a purpose the most suitable stones, most readily obtained, would be procured from these outcropping beds at "Killing" Pits, where little more than the removal of the turf would be needed to reach slabs of a suitable size and thickness. It may be noticed that the beds are cracked in every direction, often more or less displaced, broken, and tilted on edge, sufficiently to form separate slabs, so that their extraction would not be difficult. That such slabs were long since used by the Ancient Britons living on the moors round the "Killing" Pits we have ample evidence from the stone cists found in the tumuli, and also from finding several of the boundary posts marked with small "cup," and other engravings, upon them of the Ancient British period. The following drawing is one of the several boundary posts with cup markings that the writer observed on the Peak Moors during a day's ramble in the summer of 1890. These boundary stones, on which are shown similar and

other ancient mystic sculpturing, are most certainly portions of broken-up slabs which have come from ancient burial chambers. The irregular size and form of many of the “Killing” Pits are just such as would be left by the obtaining of boundary posts or slabs suitable for the construction of stone chambers for interring the dead. Slabs of various sizes would be required, and where a large one was raised a large pit would be left, and where a small one was taken the excavation would be small, much in the same way as we now find many of the “Killing” Pits differing in size.



May 12th, 1893, I again visited these pits, and this time in company with Mr. Chadwick, of Malton, and under very favourable conditions, the weather being exceedingly fine and dry, and the ground in a great measure freed of the heather by recent fires on the moors. Under these circumstances the pits were shown to be more varied in size, more numerous, and to cover a greater area than I was led to believe on my first visit. Most of them occupy irregular positions, and are only partially in two rows. Mr. Chadwick called my attention to a large flat stone (which I had previously seen) in the centre of a hole in the ground, about half a mile south of the “Killing” Pits. This large flat stone had been bared and excavated all round, but from some cause or other had not been removed. On my arrival at the place Mr. Chadwick remarked, that if this stone had been removed it would have left an excavation similar to many of those at “Killing” Pits. My reply was that I had come to the same conclusion on my first visit, and showed him the notes I had then made. A few days after Mr. Chadwick sent me the following piece of information he had gathered from residents in the neighbourhood:—

“The people living in Goathland, or the freeholders, have a right, from time immemorial, of collecting or quarrying stone on the moors.

The ‘ Killing ’ Pits are merely the remains of—or traces left of—such excavations, and probably not Ancient British at all. Stones are to be found in all sorts of positions in different parts of the moor. Some are edge way up; others are flat; but in many cases some depth would have to be dug to lift them from their positions. This process would leave similar cavities to those shown by the ‘ Killing ’ Pits.”

Thus Mr. Chadwick and myself were at one respecting the probable origin of many of these pits. Besides these “ Killing ” Pits, similar dish-shaped hollows, produced by the stubbing up of large trees, are often visible on many of the untilled sites of old forests—such as Beverley Westwood and other places; also in numerous places on the Wold hills of Yorkshire, where chalks and flints have been quarried in early times, and are often erroneously believed to be the foundations of pit dwellings.

Since writing the preceding, I have seen the *Memoirs of the Geological Survey of the United Kingdom*, and at page 236 Mr. C. Fox Strangways, F.G.S., thus writes of “ Killing ” Pits :—

“ A good deal of mystery hangs over these pits, and various theories have been started to account for their origin, but there can be little doubt that they are ancient workings for this impure iron-stone. Similar shallow pits occur at many other places on these moors, but always just over the iron-stone.”¹

After these conflicting opinions and the firm assertions of so able a geologist as just quoted, a re-examination of these pits with the assistance of the pick and the spade seemed desirable. Therefore, on the 26th and 27th of July, 1893, with the assistance of two workmen, I excavated four of the most circular in form, but variable in size. The first was a medium-sized pit, one of the larger class. After having removed the peaty turf and rubbly soil beneath, which had accumulated to a depth of 18 inches—apparently during a lengthy period—the filling-in of the pit was found to be a mixed-up material, consisting of clay, peat, disintegrated gritstone, and a few gritstone blocks of various sizes, such apparently as had been cast from an adjoining pit in sinking it. These rested on a central depressed bed of almost pure peat-earth, varying from 5 to 10 inches in thickness. This had either

¹ *Memoirs of the Geological Survey of the United Kingdom—Jurassic Rocks of Britain.* Vol. 1.

accumulated during a considerable period at the then bottom of the pit previous to the casting in of the superincumbent matter, or had been the turf removed from the surface and cast there in excavating an adjoining pit. However, this was not the original bottom of the pit, as we observed under it a very similar mixture to that met with above. This mixture was observed to extend five feet below the layer of peat, and as we proceeded downwards it readily peeled from off the firm sides of the original pit, which had been quite circular, with vertical sides, and had reached 11 feet in depth, with a diameter of $8\frac{1}{2}$ feet from top to bottom. The depth penetrated was through beds of disintegrated gritstone (moor grit), divided by beds of more or less clayey and shaley matter (calcareous shale). There was no trace of impure ironstone observable in the sides, or at the bottom of the pit; neither was there tunnelling or even undermining at the bottom, giving the pit the bell-mouth shape so firmly expressed by Canon Atkinson.

After excavating (clearing out) the other three pits, we found they had originally measured from $5\frac{1}{2}$ to $6\frac{1}{2}$ feet in diameter, and from 4 to $4\frac{1}{2}$ feet in depth. The sides of these were not quite vertical, and the bottoms were more or less roughly dished, just as they would have been made in extracting stone slabs. The outlines of all the pits were very clearly shown by their sides having been stained a dark colour from the percolation of water charged with peaty matter finding its way down the sides of the original pit, between the filling in. We could find no evidence of their ever having been pit dwellings, neither could we find any trace of ironstone having been extracted from the pits we examined. Still, some of the larger and deeper ones may have been made in searching for ironstone, and a little may have even been extracted, as small quantities of this impure stone were observed in the sides of the little gullies, at a little lower level on the escarpment near the pits. Besides, some of the larger may have been made in obtaining calcareous shale to be used as a flux, or to otherwise aid in reducing the ores believed to have been smelted in the bottom of the valley in the immediate neighbourhood—hence their name of “ Killing ” Pits.

We may therefore surmise that these irregular pits on the edge of Goathland Moor were most probably formed for various purposes, at very different periods—not solely for any one purpose—certainly not for dwellings.

THE FITZWILLIAM VIRGINAL BOOK.

By J. A. FULLER MAITLAND.¹

The passion of archæology has, during recent years, had more important results than ever before. As students of antiquity increase, scientific research is ever better directed, and sound methods of investigation are more and more widely recognized and adopted. This is probably true with regard to all branches of archæology, but none has reached a high stage of development more rapidly than the science of musical antiquities. Not many years ago, the handful of fanatics, as they were considered, who held that ancient music was a worthy object of research, were content to accept specimens of old compositions from any quarter without submitting them to the most ordinary tests. If it were attempted to perform any music of the past, it was thought enough to reproduce it under frankly modern conditions; and any want of effect that was felt was attributed to the inherent dulness of the music, rather than to the incongruity of its presentment. Again, the ancient laws of composition were carelessly studied and imperfectly understood, and any doubtful passage was restored, not in accordance with the rules that were in force at the period of origin, but in obedience to the taste of an audience accustomed only to modern music.

Of late things have been far more satisfactory, and several causes have contributed to a state of the art in which we musicians may, I think, take a great pride. Musical antiquaries have learnt that if their work is not to be discredited, they must follow the laws which govern the restitution of a corrupt passage in a classical text, and that the authority of the ancient treatises cannot be lightly set aside. Not only in England, but in France, Germany, and Italy, really scientific principles have been applied to music of a past time, and certain editions of the classics of these countries can be pointed out which

¹ Read at the Monthly Meeting of the Institute, June 3rd, 1895.

have been as carefully and accurately prepared as the monumental editions of literary masterpieces. In the investigation of national and traditional music, too, much has been done to improve the haphazard methods of a few decades ago; and although many misleading publications are unfortunately being brought out more or less continuously, yet the change of standard may be illustrated by comparing the original edition of Chappell's *Popular Music of the Olden Time*—the author of which, though perhaps the best musical antiquary of his day, was in the habit of accepting tunes without any satisfactory evidence of their genuineness and purity—with the new issue of the book, into which Mr. Wooldridge, the present editor, has admitted nothing that is not capable of irrefragable documentary proof. Not only has the literature of music undergone what may be called a revolution, but a very important element in the change is due to the scientific reconstruction and restoration of the old musical instruments, whereby we are enabled to hear the compositions of the last three hundred years at least almost exactly as they were heard by the contemporaries of the composers. Various attempts have been made at restoration in various places; but the most important work in this direction has undoubtedly been done by Mr. Arnold Dolmetsch, who has succeeded wonderfully in reconstituting every kind of musical instrument in general use in the sixteenth and seventeenth centuries.

It is of a book, rather than of an instrument, however, that I have been asked to tell you to-day, although it is owing to Mr. Dolmetsch's kindness in lending me his virginal that you will presently be able to estimate to some extent the beauty of the music the book contains.

In the Fitzwilliam Museum at Cambridge there is a musical MS. containing a very large number of compositions for the virginal, the keyed instrument which was the immediate precursor of the spinet and harpsichord, and which held, in the fifteenth and sixteenth centuries, the place now occupied by the pianoforte. The origin of the name "virginal" is far from clear; but the theory now generally accepted is that the instrument was intended for the use of young ladies, or played by them. This is the meaning given by Blount, in *Glossographia*. One

whose opinions have every right to be considered has put forth a supposition that it was called "virginal" because keyed stringed instruments were used to accompany the hymn "Angelus ad virginem"; another surmise, that the English name of the instrument was given in honour of the virgin Queen Elizabeth, seems without foundation, and equally baseless is the traditional title of the book now under discussion.

That title, it has been amply proved, is altogether false and misleading, and indeed that it should have ever arisen is only an illustration of the carelessness with which musical manuscripts were examined in past times. For against one of the pieces, the "Ut, Re, Mi," of Sweelinck, on p. 216, there occurs the date 1612, when Queen Elizabeth had been dead nine years. And another piece, Dr. Bull's "Juell," exists in a manuscript in the British Museum, where it is dated December 12, 1621. Probably the name, for which Hawkins is responsible, arose from the fact that all the composers represented rank among those of the Elizabethan era. In outline the history of the book, as brought to light by Mr. William Chappell and latterly by Mr. W. Barclay Squire, may be recapitulated as follows:—

A Cornish gentleman, named Francis Tregian, the head of a rich and powerful Catholic family, was seized on account of his religion, in 1577, and after many short imprisonments was thrown into the Fleet prison, where he remained for at least twenty-four years. In this prison eleven of his children were born, among them his eldest son, Francis Tregian, who entered the College at Douay in 1586. On leaving Douay, in 1592, he was for two years chamberlain to Cardinal Allen in Rome. He afterwards returned to England and succeeded in buying back his father's lands; but in 1608–9 he was committed to the Fleet himself on a charge of recusancy. He died there in 1619, owing a large bill to the warden for board and lodging. It is this Francis Tregian who has been supposed to be the scribe of the greater part at least of the famous manuscript. The splendid binding is undoubtedly a piece of Netherlands work, and many other things connect the book with the Netherlands. One of the composers most largely represented in the collection is Peter Philipps, who was an English Catholic ecclesiastic settled in the Netherlands,

and probably a connexion of Morgan Philipps, one of the first Professors of the Douay College. You will remember, too, how close was John Bull's connexion with the same country. The date I quoted before for a piece by Bull (1621) would of course invalidate the younger Tregian's claim to be considered as writing the whole of the volume ; but it has been supposed that two styles of writing are to be discerned in the MS., though they are so much alike that it is difficult to be sure whether they are two or one. That the family of Tregian had a good deal to do with the book is quite certain ; the "Mrs. Katharin Tregian," whose name appears opposite a pavan by William Tisdall, on p. 315, was probably the grandmother of the younger Tregian. But more eloquent than this is the frequent occurrence of odd little contractions of the surname, no other proper name being thus treated throughout the book. "Treg. Ground" is the name of a piece by Byrd ; "Pavana Dolorosa Treg." is a piece by Peter Philipps, dated 1593 (the year after the younger Tregian left Douay for Rome) ; the initials "Ph. Tr." are set against a pavan by Byrd ; against the first line of a jig by the same master are the initials "F. Tr." ; and, finally, a short piece called "Heaven and Earth" has, for its composer's name, the three letters "Fre.," no doubt a contraction for "F. Tregian." The theory concerning the compilation is, then, that the book, bound as it is now, was bought by Francis Tregian in the Netherlands, and that, during his imprisonment in the Fleet, he wrote out from musical manuscripts in his possession the transcript which has been, in some cases, the only means of their preservation.

Its later history is soon told ; how it got into the hands of Dr. Pepusch is not known, but Hawkins tells us that Mrs. Pepusch, who was Margherita de l'Epine, the famous singer, used to try to play the pieces ; and though she was an accomplished harpsichord player, she never could get through the first piece in the book, the famous set of variations on "Walsingham." If one thinks of the executive powers on the pianoforte of the most accomplished *prime donne* of the present day, we shall not find it difficult to believe what Hawkins tells us about Mrs. Pepusch. In 1762 it was bought at Pepusch's sale by

R. Bremner, who gave it to Lord Fitzwilliam before 1783. The price paid for it by Bremner was £10.

The difficulty of making public the contents of the manuscript seemed at one time quite insuperable, seeing that it was not possible to find anyone with the requisite knowledge, who would also have the leisure to work at it in the museum at Cambridge; and by the terms of Lord Fitzwilliam's will, nothing may be taken out of the museum for any purpose. At last, two years ago, an ardent lover of old music, who happens to be an accomplished photographer, Mr. C. F. Bell, undertook to photograph the entire volume on a reduced scale, so that the work of translation into ordinary notation could be carried on where it was most convenient. The extreme neatness and clearness of the writing made it seem as if it would be easy enough to reduce the music to a form in which it would have some meaning for modern musicians; but the task has been by no means a light one.

It will naturally be asked, What is the nature and style of the music contained in this collection? Its chief value consists in this:—that while the vocal works of the great Elizabethan composers are, if not as well known as they deserve to be, yet accessible to all who care for them, their published instrumental music is of small extent, and hardly important enough to be called representative. Works by Byrd, Bull, and Orlando Gibbons were published, in 1611, under the title of "Parthenia" (with obvious reference to the name "Virginal," a reference which is made still more emphatic by the picture, on the title-page, of a simpering young lady playing the instrument). The compositions were very few, nor do these three names complete the catalogue of composers of the virginals of that golden age. Of several existing MSS. of virginal music, the Cambridge book is by far the longest and most important, but it is to be hoped that in the future the contents of the other collections may be made public.

In considering the contents of this collection, it is necessary to remember that the great musical form in which all "classical" works are cast was not so much as guessed at in the reign of Elizabeth. Without entering into technical details, I may remind you that this form allows of the modification, or, as it is called, development,

of the musical subjects or phrases chosen, and that its conventions allow the display, not merely of technical ingenuity, but of real invention, imagination, and poetry. Such qualities we need not hope to find in the Elizabethan pieces, except in a very rudimentary condition; and they are for the most part much shorter than the sonata-movements to which modern musicians are accustomed. I may divide the contents into four classes, which are about equally represented in the book:—

- i. Variations, or rather florid ornamentations on the plain chant of the church, or *canti fermi*. These are the oldest things in the volume, one of them, a “Felix Namque” of Tallis, being dated 1562.
- ii. Variations on secular tunes, in a style which seems to foreshadow the sets of variations that reigned supreme in the fashionable world down to the middle of the present century. The tunes appear now in one part, now in another, but are seldom altered at all materially, though sometimes they are richly ornamented. In these pieces it is interesting to see the gradual development of various forms of musical embroidery that are now so hackneyed as to be absurd, and for the student of the pianoforte the passages have a special value. One peculiarity of these variations is the great executive dexterity required in the left hand, which must have been cultivated by the Elizabethan young ladies to an extent that is hardly dreamt of, even by the virtucsi of the present day. It was no doubt this peculiarity which occasioned Burney’s remark, concerning these very pieces: “Some are so difficult that it would be hard to find a master in Europe who could play them without a month’s practice.”
- iii. Fantasias based upon some short and easily-remembered subject, treated in strict contrapuntal style, and with very beautiful effect. To the unpractised ear these compositions are hardly distinguishable from fugues, excepting that they very often fall off towards the end

into mere florid ornament. When this is the case a return is generally made to the polyphonic style in the last section, which, in many instances, is of the utmost grandeur and breadth.

- iv. Dance-movements, ranging from the long and elaborate pavans and courantes to the slighter and shorter almans, &c.

In point of time, the compositions, so far as they are dated, cover a period of sixty years from the composition by Tallis, already mentioned as being dated 1562, to Dr. Bull's "Juell," dated 1621.

This instrument, belonging to Mr. Dolmetsch, is a very fine specimen of a sixteenth century instrument of Italian make; it is undated, but a written sentence appears on the crosspiece confining the jacks, "*Non percussus sileo*" ("Unstruck I am mute"), in a hand that cannot be later than 1600. The action is, roughly speaking, the same as that of the harpsichord, *i.e.*, the jacks, furnished in this case with leather, not quill plectra, rise on the pressure of the keys, striking the strings as they pass them, and being provided with dampers to prevent the sound of the plectrum as it returns to its place. It has one very awkward peculiarity in practical music, and that is what is called a "short octave," the seven lowest notes being arranged so as to give these sounds in succession, beginning from the bottom note, which is apparently E—

Apparent notes, E, F, F sharp, G, G sharp, A, B flat.
Real sounds:— C, F, D, G, E, A, B flat.

As an example of the first class I have mentioned, I have chosen, not one of the compositions by Tallis, which are so archaic in style as to be scarcely pleasing, but one of Byrd's, a "*Miserere*" in four parts, in which the workmanship of the ornamental parts has far more interest and beauty than anything of the same kind by Tallis can show. Byrd inherited from Tallis the tradition of this solid kind of music; he was only a little younger than Tallis, but he was a musician of far wider powers. He and Tallis obtained in 1575 a patent from Elizabeth for printing and selling music and music paper, English and foreign, for twenty-one years. They afterwards found the

monopoly less profitable than they had expected, for there is a petition in the Stationers' Registers, recording that "Bird and Tallys . . . haue musike booke with note, which the complainantes confesse they wold not print nor be furnished to print though there were no priuilege." In this Virginal book are many compositions by Byrd, which prove him, if there were nothing else by which he were known, to deserve the name of a Master of Music, bestowed on him by more than one contemporary. Peacham, in his *Compleat Gentleman*, calls him "That Rare Phoenix, Maister William Bird." He died in 1623, so that his life covers the whole period of the compositions in this book.

Byrd's pupil, Thomas Morley, obtained a similar patent to that already mentioned, in 1598; but although apparently a much younger man than Byrd, he died as early as 1604. His great work, as some of you may be aware, was the famous Treatise, called, somewhat ironically, as it seems to us nowadays, *A Plaine and Easie Introduction to Practicall Musicke*. He wrote in all the forms of music then practised, and his madrigals are among the very finest of any time. In the department of instrumental music, as it concerns us to-day, his chief contributions were those belonging to my second division, namely, variations upon popular tunes. His "Goe from my Window" is perhaps the most beautiful of these, and it seems to be the only way in which the tune itself has been preserved. I may perhaps be permitted to tell you of one very gratifying thing in connexion with this piece. For reasons which I could not explain without troubling you with many details of a very technical kind, the music of this period cannot be written out straight from the MS. With regard to accidental notes, &c., the practice of the older composers was in many ways different from ours, and many points have to be supplied conjecturally, in order to recover the actual effect of the music. The ninth piece in the collection is this piece by Morley; and my fellow-editor and I had fully discussed it, and supplied accidentals, when we came upon No. 42, a set of variations on "Goe from my Window," attributed to John Munday. It turned out to be the same composition, saving only that No. 42 had an extra bar and a very

beautiful variation at the end. A comparison of the two proved that our conjectures were almost without exception right, for the later piece had been written out with more care, and had the accidentals which we had put in.

As an example of my third class, I have taken a fantasia by Peter Philipps, who, as we have seen, was intimately connected with the transcriber of the book, and whose compositions abound in it. His very name had been strangely forgotten in England till a few years back, when Mr. Barclay Squire published some beautiful madrigals by him.

Before coming to the fourth class, I should like to play you the last-dated piece in the book, Dr. Bull's "Juell." It does not indeed contain many of the curious characteristics of Bull's work; these were bold harmonic and rhythmical experiments, which for the most part are more interesting to learned musicians than to people in general; and rapid passages very often for the left hand, and very often consisting of repeated notes that are exceedingly difficult to play successfully on instruments of this date. One of Bull's experiments in rhythm is a fantasia kept up from the beginning till nearly the end, in 11-4 time, which yet sounds quite natural.

Another most interesting number, which I should have played you were it not that the "short octave" arrangement already referred to makes it impossible to play some of the notes on this virginal, is a piece called "Ut, Re, Mi," the subject of which consists of the successive notes of the scale, subjected to every kind of ingenious treatment in the way of modulation; the piece is nothing less than an anticipation of the "Wohltemperirtes Clavier" of Sebastian Bach, in that it realizes what is called the circle of keys, quite a hundred years before the invention of equal temperament.

There is one very quaint specimen of an early endeavour to represent non-musical things in terms of music, in a fantasia by John Munday, describing in very naïve manner the changes in the weather. In case there should be any mistake as to the meaning of the different parts, they are carefully labelled "Thunder," "Lightning," "A Cleare Day," &c.

A short "alman" and a little piece called "Muscadin," both by anonymous composers, will fairly represent the fourth class, that of dance-tunes.

ON RECENTLY DISCOVERED MURAL PAINTINGS AT
WILLINGHAM CHURCH, CAMBRIDGE, AND ELSE-
WHERE IN THE SOUTH OF ENGLAND.

By C. E. KEYSER, M.A., F.S.A.

Since the publication, by the Council of Education, South Kensington Museum, of the third edition of the *List of Buildings in Great Britain and Ireland, having Mural and other Painted Decorations*, in the year 1883, a large number of fresh examples of wall paintings and other remains of decorative colouring have been brought to light. Many of these have been already illustrated and described, as for instance the panel painting of the Doom at Wenhamston, Suffolk,¹ the wall paintings at Little Horwood and Padbury, Buckinghamshire,² those at Chippenham, Cambridgeshire,³ the interesting examples at Poslingford, Suffolk,⁴ and at Friendsbury, Kent;⁵ the very fine series at Friskney, Lincolnshire,⁶ &c., &c. Several examples from Sussex are described in *Sussex Archaeologia*, Vol. XXXVIII, p. 1. At Ashampstead, Berkshire, some thirteenth century paintings have been quite recently discovered, and are described in the *Reliquary and Illustrated Archæologist*, Vol. II, p. 53. Short notices of other discoveries have also appeared from time to time in the *Antiquary* and other archæological publications, and, as in the instance of St. Paul and the Viper at St. Anselm's Chapel, Canterbury Cathedral, in the weekly and daily journals.

Before entering on a detailed account of the paintings at Willingham, it appears convenient to give a brief description of other recent discoveries, which, it is believed, have not been fully or correctly treated of, and which have either been carefully personally examined,

¹ *Archæologia*, LIV, 119; *Archæological Journal*, XLIX, 399, &c.

² *Archæological Journal*, XLIX, 335; *Records of Buckinghamshire*, VII, 217.

³ *Cambridge Antiquarian Society's Journal*, V, 321.

⁴ *Suffolk Archaeologia*, VIII, 242.

⁵ *Archæologia Cantiana*, XV, 331; XVI, 225.

⁶ *Archæologia*, XLVIII, 270; L, 281; LIII, 427.

or about which early and reliable information has been obtained. Many of these have probably already disappeared, as even now, as of yore, the hand of the destroyer follows close on that of the restorer, and paintings are brought to light only to be re-covered with colour wash or otherwise obliterated.

Starting in the Eastern Counties, the Church of Lakenheath, in Suffolk, may first be mentioned. This was visited in October, 1886. The walls of the church were covered with painting, some of the scroll patterns and other decorative designs being as early as the twelfth century. There were traces of pictorial subjects in various places, viz., of figures of men and horses on north wall of north aisle, of Our Saviour showing the wounds on the east wall of the nave on south side of chancel arch, and of the Virgin and Child on west wall of north aisle; but the most interesting were a series of New Testament subjects painted on the spandril space between two arches on the north side of the nave, representing The Presentation in the Temple, with St. Simeon, the Infant Saviour, and the Blessed Virgin; the Scourging; Our Lord bearing His Cross; the Descent into Hell; and the Resurrection, all of fifteenth century date.

At Heybridge, near Maldon, in Essex, visited in March, 1886, while the church was undergoing restoration, had been recently opened out on either side of the chancel, the head of a Norman light, which had for centuries been blocked up by the insertion of perpendicular windows. Some very nice early foliage, probably of the twelfth century, and very fresh in its colouring, remained on the heads and splays of these earlier windows.

At Copford, in the same county, where the series of paintings of the Norman period in the apse is so well known, the walls of the nave and western bay of the chancel have been recently explored, and numerous decorative and pictorial designs had been brought to light at a short time previous to a visit paid to the church in November, 1893. In the western bay of the chancel on the south side round a blocked-up Norman window is on the east a King crowned and holding an orb, and on the west a Queen repainted. Above the arch

are two angels, one holding a dish with loaves or apples, the other holding a wreath. These are of the Norman period. On the north side round the head of the window, which is modern, are some heads, said to form part of the subject of the Transfiguration. There are traces of figures lower down on either side of the window. The nave is very interesting, and when first constructed was clearly divided into two stories, the lower one separated into several bays by a series of groining arches, all elaborately painted. The two stories are now thrown into one, the vault and upper portions of the arches of the lower church having been cut away, but the jamb shafts, capitals, and lower parts of the arches standing out some distance from the walls, still remain. On the soffit of the eastern groining arch are parts of two figures on north, with an angel holding a sword within a medallion below, while on the south is a portion of an indistinct subject, and an angel holding a cross within a medallion below. On the east respond of an Early English arch opening from nave to south aisle is a small representation of the Trinity Banner. All the Norman groining arches are ornamented with rich decorative designs forming borderings, of similar style and date to those previously discovered in the apse. On the north wall on east portion of the nave is a large painting said to be Our Lord healing the Centurion's servant; on the west of the picture is a prostrate figure with some women gazing at it, then the wall of a building, and outside, (?) the Centurion addressing Our Lord, who has the cruciform nimbus, and is accompanied by one of the Apostles. The figures are almost life size, and the attitudes are very expressive. The definitions of the subject do not appear to be very satisfactory. It may portray St. Mary Magdalene and Our Lord performing one of His miracles, and is probably one of the subjects mentioned as having been discovered in 1690.¹ On the springer of the next groining arch on the north is part of the subject of Samson or David and the lion, only the lower portion of the figures being visible. An example of the same subject in Norman sculpture may be seen on the tympanum of a

¹ Wright's *History of Essex*, I, 406; *Cromwell, Excursions through Essex*, I, 64; *Antiquary*, 1871, I, 158, 184.

former doorway at Highworth, Wiltshire. Below is a nimbed head within a medallion. On either side of the Norman window adjoining is the figure of a Norman soldier, and decoration on the jambs, splays, and above the head of the window. On the west groining arch is part of a subject not now discernible, and on west bay of north nave wall is part of a rich border and other colouring. On the west wall are two large but indistinct subjects, viz., on north of west window two bishops and other figures, and on south a crowned head and other personages. There is a sheep or ram portrayed above. On the south side on the western groining arch is the Norman decoration, and a head within a medallion below. On the next groining arch is the subject of the Flight into Egypt, the lower part of the ass and the drapery of the Virgin, and of a figure behind them being discernible. There is another nimbed figure within a medallion below. Above the Early English arch into the south aisle is a Norman window recently opened out. On either side of the lower part is the upper portion of a knight, and round the splay and arch, and on the wall above the window, is elaborate twelfth century ornamentation. The whole series is most interesting.

At Fingringhoe Church, visited in November, 1893, are some paintings, described in the *Essex Archæologia*,¹ and now very faint. On the west respond of the nave arcade is the figure of an Archangel, and on the western pillar three subjects, viz., St. Gregory's Mass, St. Michael Weighing Souls, with the Blessed Virgin interceding on the Souls' behalf, and the Virgin and Child.

At East Hanningfield, in the same county, according to information received from Mr. Durrant of Chelmsford, during the progress of the conflagration which destroyed the church, the "fire disclosed frescoes at the west end of the nave where they had been hidden by the woodwork of the belfry. They represented The Last Supper, St. Catherine and Her Wheel, Christ Healing the Sick, &c."²

At Waltham Abbey Church a large painting of the Doom has been brought to light, and in an old house

¹ *Essex Archæologia*, New Series, III, 118; *Essex Note Book*, p. 9.

² Durrant's *Handbook for Essex* p. 115.

near the abbey was found beneath the panelling a large post-Reformation painting of Jonah being cast out of the ship into the jaws of an immense whale. This was cut out from the wall, and exhibited at a meeting of the London and Middlesex Archæological Society, at the Drapers' Hall, Throgmorton Street, E.C., in March, 1893.¹

At the ruined church of Ayot, St. Lawrence, Hertfordshire, are various remains of colour, and on the chamfer of the arch of the south doorway an early inscription in red letters, the words "Andrew M" being still decipherable.

At Hatfield, in a room over the outer gateway of the palace built by Morton, Bishop of Ely, at the end of the fifteenth century, and now used as a dressing room in connection with the tennis court, the walls on the south and west sides and the panelling on the north are covered with a large subject of a lion hunt. The main part on the west wall shows a gentleman on horseback, with a man bearing a shield behind him. Round the corner on the south wall is another horseman, with hound by his side, and behind him a soldier. In front of the principal figure can be made out a lion springing up at three men on foot, two of whom are striking at it with their swords, while the third has a kind of spiked ball at the end of a leathern thong. In the background are numerous trees, houses, and churches. On the panelling on north wall are faint traces of more painting, with a figure, rustic scenery, &c. The colours used are dark grey, black and white, with some deep yellow on the saddle of the central figure. The painting dates from the time of Elizabeth or James I.

At Cottered, during the restoration of the church in 1886, remains of colouring were found over the chancel arch, round the jambs of the south doorway, and elsewhere on the walls. On the north wall of the nave, by and partly over the north doorway, and facing the south doorway, which is, and always has been, the principal entrance, is a large subject about 8 feet square, within a border ornamented with black ivy berries. It is probably a portraiture of St. Christopher, but unfortunately the central part of the picture is so confused that, with the exception of a shield, apparently of St. George

¹ *The Antiquary*, 1893, vol. xxvii, p. 225.

—but the colour is gone—nothing can be distinguished, though it is said a large figure and two heads in the upper part have been discerned. On either side, carried from top to bottom, is a curious zig-zag road, touching on the east side on numerous houses, of the lath and plaster type, two castles and a church with a spire (similar to that of the present church), trees, bridges, &c. In the road are two soldiers fencing, and, lower down, a hound chasing a stag. On the west side are also several houses, and numerous avenues or hedgerows of trees, and a chapel, with a figure of a hermit or monk standing at the door and tolling a bell. In the centre is perhaps part of the mast and sail of a ship, and, below, a large tent open at the side, and with a youth in red hose and long toed shoes standing near it. The groundwork of the picture is deep red, and the only other colour now apparent is vermilion. It is of late fifteenth century date.

At Witley Church, Surrey, visited in April, 1892, was a large subject recently uncovered on the south wall of the nave. There were two rows of figures, one of which was St. Anthony, but the details were too indistinct to enable anyone to obtain a clue to the design.

At the disused parish church of Albury, in the same county, a painting of St. Christopher was found beneath the whitewash over the south doorway, shortly before a visit made to the church in September, 1889. It is partially concealed by a tablet, but presents us with all the usual accessories of this subject, and several ships in full sail, portions of a castle, &c., are introduced into the picture.

At Littlebourne, in Kent, is part of the same familiar representation, covering a considerable portion of the north wall of the nave. The Saint and Infant Saviour have been destroyed; but the hermit, standing with lantern at the door of his cell, and several ships in full sail, and a galley containing numerous sailors, sufficiently indicate the main subject of the picture. At the time when this painting was inspected, viz., in February, 1889, the very interesting and early representation in St. Anselm's Chapel, Canterbury Cathedral, of St. Paul shaking the viper from his hand into the fire, was brought to light.

The deep blue colouring was very remarkable at the time. The subject has been illustrated and fully described in *Archæologia*, Vol. LII, p. 390, and *Archæologia Cantiana*, Vol. XVIII, p. 172, and elsewhere.

Another discovery was made in the same year on the south wall of St. Alphege Church, Canterbury. The picture was of considerable size; and though somewhat indistinct, and the chief part of the figures of the Virgin and Child obliterated, sufficient remained to identify it as a representation of the Adoration of the Magi, of fourteenth century workmanship.

At Boughton Aluph, in the same county, a painting of the Holy Trinity was discovered on the east wall of the north transept, in the summer of 1893. It is of the latter part of the fifteenth century, and, as is usual in representations of the subject at that period, portrays the Almighty seated, and holding the Crucified Saviour between His knees. A powdering of the monogram "i.h.c." is introduced into the picture, and a small object in the right hand corner may be a kneeling figure of the donor of the picture. A short account of this painting with an illustration will be found in the *Reliquary*, Vol. VIII, New Series, p. 49.

In the County of Sussex two very important discoveries took place at this same period, and were inspected in September, 1893, while the churches were undergoing restoration, and again in the Spring of the present year. The small church of Clayton, standing almost at the mouth of the tunnel on the main Brighton line, has a very early chancel arch, but otherwise presents no special architectural features of interest. The whole of the nave walls, on the removal of the whitewash, were found to be elaborately decorated with a very large and rather early representation of the Doom. Over the chancel arch, within a vesica, having a kind of riband zigzag bordering, is a figure of Our Lord seated and with uplifted hands, no doubt showing the wounds. The features of Our Lord and the drapery are somewhat indistinct. The ground colour is a pale pink. Surrounding it are several figures, all very faint: the one on either side of the vesica seems to be resting the head against it. The figures (? Are they the Apostles?) appear to be nimbed and in attitudes of

adoration. There is a beautiful bordering of interlacing scroll foliage, white on a red ground, with an upper band of red and yellow carried round part of the arch and then horizontally to the north and south walls, and another embattled bordering along the upper part of the picture. Below, on either side of the arch and above an early recess in the east nave wall, is a figure of Our Lord, with a cruciform yellow nimbus and red cross, richly vested. On the south side He is bearded and in the attitude of Benediction, and a Chalice is painted on the wall to the south of Him. In the painting on the north side is a kneeling figure, probably of St. Peter, receiving the keys. In both pictures a row of trefoiled arches is introduced above and at the sides of the painting. A tablet conceals the lower part of the one on the south side. The north and south walls are covered with a procession of large figures, no doubt forming part of the main subject of the Doom. The embattled border is carried along above, and the scroll below, as on the east wall. On the north side at the east end is painted a large hexagonal enclosure, with the trefoiled arches on a red ground, and a kind of lattice work in red lines forming the lower part of the outer wall. In the centre are seated three nimbed figures, no doubt intended for the three persons of the Blessed Trinity. That on the west side is the most distinct, and has the right hand with the palm outwards partly upraised, and probably the cruciform nimbus. The central figure is clad in white. The whole is very faint, but appears to be intended to represent, though in an unusual manner, the Heavenly Mansions. On the east of the enclosure is a large angel, and on the west a large nimbed figure (? of St. Peter), in full ecclesiastical vestments. He has the right hand upraised, while with the left he is grasping the left hand of an ecclesiastic richly vested, and holding a pastoral staff in the right hand. He also has the nimbus. To the west is another angel in white with red border to his garment, and with the nimbus. He is turned with partly uplifted hands to three more ecclesiastics. The angel and St. Peter are bare-footed, while the ecclesiastics have red shoes. The lower part of the two western figures is destroyed by the insertion of a modern window. To the west of these

comes a procession of crowned figures with short tunics and striped stockings, only the heads of the eastern ones being visible. At the west end is another angel blowing a trumpet. To the west of the window on a lower level is another angel with richly painted red wings stooping down, and behind him are several uplifted hands, and two nude figures, clearly rising from their tombs. On the south wall at the east end is a large figure, probably of an angel, and immediately adjoining it a large cross in red, with several nimbed and apparently winged figures prostrated at the foot of it, and below the eastern arm. On the west side is a female figure with the head resting on the arm of the Cross. To the west again is an angel apparently keeping back the figures beyond it, namely, four ecclesiastics richly vested, and then a series of crowned personages similar to those on the north. A modern window on this side also occupies the space of part of the subject, and to the west of it come several figures, one crowned, some kneeling, and all with hands in attitude of supplication. Three crowned figures adjoining the window hold scrolls, and are turned towards the west. There is also a figure on a large crimson horse, riding westwards. There is a figure with uplifted hands between the forelegs of the horse. On the lower level to east of the window are faint traces of persons rising from their graves. The embattled and scroll borders are carried along the wall, as on the north and east. The treatment of the subject is unusual. It is probable that, as in other instances, the procession on the north represents the saved, that on the south the condemned, at the great day of Judgment. The date appears to be late in the thirteenth century. On the north wall can be made out a series of large semi-circular arches on shafts, of an earlier date. Other remains of colouring exist in the church.

At the same time as this very interesting discovery was being made at Clayton, viz., in 1893, some almost equally remarkable paintings were being brought to light at Rotherfield, in the same county, during the restoration of the church, and, as in the case at Clayton, these have also been carefully preserved. There are considerable remains of decoration, scroll designs, &c., in various parts of

the church, of as early a date as the thirteenth and fourteenth centuries. There is a nice early scroll foliage pattern on the west wall of the Lady Chapel on the north side of the chancel, and on the same wall and the splay of the several windows a masonry pattern of double lines in red. On the north splay of the east window of this chapel is a figure of a large angel on a red ground powdered with ivy berries. A faint scroll can be made out over his head, and there can be no doubt that this is St. Gabriel, and that the Blessed Virgin was delineated on the opposite splay to complete the subject of the Annunciation. On the east window on north side, on the east splay is apparently a nude female figure seated and holding a distaff. She has golden hair, but the colouring is very faint. On the opposite splay is the foot and lower part of the leg of another nude figure, so that there is little doubt that Adam and Eve were here portrayed. Over the chancel arch is a large representation of the Doom. In the centre is Our Lord nimbed, with deep red undergarment and yellow cloak. His hands are upraised, and right side, arms, and feet are bare, exhibiting the wounds, whence the blood is streaming. His feet rest on a large orb, and above His head in a yellow medallion is the sun and moon on either side. On each side is an angel with outspread wings blowing a large trumpet: that on the north has red, and that on south yellow wings. On the right of Our Lord is a figure of the Virgin, kneeling and in attitude of supplication; she has red nimbus and cloak. On Our Lord's left is St. John with red vestments, also nimbed, and kneeling. Below are the heads of two monks. On the dexter (north) side is a large hexagonal enclosure with yellow walls and red doors and a pinnacle on south-east corner. Within it are several figures, and the wing of an angel is discernible. (? Is it intended for the Heavenly Mansions?) Below are traces of various figures, and below again on north of the chancel arch is a large representation of St. Michael Weighing Souls. St. Michael has a yellow nimbus, and his wings and the lines of his vestments are a deep red. The scale on the north side is weighing down that on the south. He is holding the balances in the left hand, and points to the south side with his right. There seems to be a small figure by the south

scale, and several more by the north, but all are very indistinct. Below is a scroll border, vermilion on a white ground, and below again two rows of small figures. The lines on their dresses are picked out in vermilion, but the subject is too indistinct to enable one to hazard a conjecture as to its interpretation. On the east pier of the south nave arcade are traces of a figure, and on the north wall of the nave, between the two eastern arches, are indications of a large subject, but only the borderings are at all clear. On the east wall of the north aisle, on the south side, is a large figure of Our Lord standing and apparently holding a Cross in the left hand. He has red cruciform nimbus, white garment with yellow lining, and is delineated with bare arms and feet. A nimbed figure with crimson robe kneels at His feet. Our Lord is holding the right arm of this figure in His, and is pressing the hand against the wound in His side. The subject is of course the Incredulity of St. Thomas, though the kneeling figure has rather the appearance of a female. The representation of Our Lord is above life size, and an ornamental pattern in yellow runs along above His head. The date of the painting may be as early as the fourteenth century. On either splay of the blocked west window of the north aisle is a large nimbed figure in deep red vestments. That on the south side is holding some object (? a sword) pointed towards his body, while that on the north seems to be an ecclesiastic. Varied decoration has been noted on some of the nave columns.

At West Grinstead, in this same county, a very fine example of St. Christopher was recently discovered. It is described in *Sussex Archaeologia*, Vol. XXXVIII, p. 51, where it is stated that most of the picture has again been covered over.

At Catherington Church, Hampshire, some paintings were discovered, and brought under the notice of the Society of Antiquaries on February 7th, 1884. On the north wall of the nave is a large painting of St. Michael Weighing Souls, which has been restored. It presents many peculiar features. St. Michael, with outspread wings, is habited in a long tunic powdered with crosses down to his ankles. He grasps a sword in the right hand, while the left is held over the balance on the condemned

side of the scales, which are suspended from a girdle round the waist. To the west is the Blessed Virgin crowned, and interceding in a practical way on the soul's behalf. She holds the beam in the left hand, while with the right she has unhooked the scale containing the soul. In the other scale are several demons, and one is crawling along the beam. The date is probably fourteenth century. On the east windows of the north chancel chapel is a considerable amount of nice decoration, and a representation of the Blessed Trinity, unfortunately much faded when seen in 1889. The Almighty holds the Crucified Saviour between his knees, as at Boughton Aluph, and above are two censuring angels, and above again two more angels, one playing on the harp. The surface is diapered with cinquefoils. Only two shades of red are used to depict the several portions of the subject.

At Durley, in the same county, numerous paintings had been found, but unluckily had been almost entirely white-washed over previously to a visit paid to the church in April, 1888. On west splay of north chancel window is a figure holding a scroll, and on the splay of a window in the north transept is a ship with a sailor doing something to the tackling. The following paintings had also been found, viz., on walls of chancel, various figures, and below them, of an earlier date, masonry patterns enclosing cinquefoils; on transepts and nave walls, first, texts of Elizabethan date, and then various saints; on south wall of nave between the doorway and west end, the Doom with our Lord in Judgment, the saved being represented, as is usual, clothed, while the condemned were being driven naked to Hell.

At Hurstbourne Tarrant, visited in June, 1896, is a considerable amount of decoration at the east end of the north aisle. On the north wall of the aisle between the east and middle window is a large representation of the Morality of "*Les trois rois vifs et les trois rois morts.*" On the east side are the three skeletons painted in yellow, and with a yellow tree between each of them. On the west are the three Kings: the eastern one is bearded, richly habited, and holding up his left hand. He has deep red shoes. The next is also bearded, while the western one is a younger man with smooth face. They wear crowns

of an early type. A tree is depicted between each of them. A beautiful scroll border runs above the picture, and a scalloped pattern below. The date is of the time of Edward the Third. Between the middle and west window, also on north wall of the north aisle, is part of the subject of "The Wheel of the Seven Deadly Sins." Only the eastern portion has been explored, with a nice scroll pattern running round the border of the wheel, and representations of Luxuria and Socordia. This is also of the fourteenth century, and it is hoped that more of it may shortly be uncovered.

At the neighbouring church of Ashmansworth is an early painting on the west splay of the Norman window at east end on north side of the chancel; it appears to represent an ecclesiastic stooping down towards a figure of the Virgin. On the north chancel wall is a figure, perhaps of St. Anne.¹

At Tufton Church, in the same neighbourhood, on the wall facing the principal entrance, is an excellent portraiture of St. Christopher.

One of the most recent discoveries of mural paintings has been made at Wellow, also in Hampshire, viz., in the autumn of 1895. Round the head of the east window are some crowned heads and thirteenth century decoration previously discovered and described in the *Archæological Journal*, Vol. IX, p. 117. On the south splay is a figure of St. Thomas of Canterbury, rather faint, but the name is discernible. On the east wall of the chancel is a masonry pattern with five-leaved roses on stems in red, and two very fine Consecration Crosses, one on either side, of a deep red, of the Maltese type, within circles. On south wall near east end is the martyrdom of St. Thomas of Canterbury, also somewhat obscure; but the head of the archbishop, his attendant deacon, and the armed knights can be made out. The pattern of masonry and roses appears on various portions of the chancel walls. On east part of north chancel wall is, perhaps, a large cruciform nimbus. On the east splay of the east window on this side is a crowned head, and on the east splay of the west window an archbishop with the name above, Edmund of Pontigny, Archbishop of Canterbury. The

¹ *Newbury District Field Club Transactions*, IV, 192.

only other English church where he occurs in mural painting is at Friendsbury, Kent. There is one more Consecration Cross on the north chancel wall. On east wall of nave to the north of the chancel arch is part of the Creed, and along the north wall a very interesting scheme of decoration. The earliest appears in places, and consists of a design of roses and lilies within masonry patterns, probably of the thirteenth century; then come some large subjects, with a very beautiful crimson scroll border above. At east end is part of a large figure; next comes a figure on horseback, and a female seated (?) on an animal. She has yellow hair and deep crimson robe, and is holding a distaff in her hands. Query, is this the legend of St. George? Farther west is a fine example of the familiar subject of St. Christopher. He is clad in yellow vest and crimson tunic. He holds the Infant Saviour, who is habited in a pale garment, the colour not now discernible, on his left arm, not, as usual, on the shoulder. Both face the main south doorway. In the water is part of a fish, and to the west two large figures in the attitude of Benediction. Over the north doorway is a large castle, probably part of the same subject. To the west of the north doorway and on west wall is the pattern of roses and lilies, a copy of the earlier design and probably of fourteenth century date. There is one Consecration Cross on north wall to the east of the north doorway, and another to the west of it with a small cross within a circle, apparently painted over the earlier one. Another, with rich crimson border, remains on the west wall. On south wall to the west of the south doorway is the rose and lily pattern and another Consecration Cross. To the east of the doorway is a semicircular-headed stoup, with canopies in red painted above the arch, and on the back of the recess. A portion of the old screen retaining its colouring is incorporated with the reading desk in the chancel.

At Wimborne Minster, in Dorsetshire, some paintings were found in 1891. Within a Norman recess in the east wall of the north transept the wall was covered with painting, and unfortunately parts of four distinct series were so mixed up as to make the various subjects obscure and fragmentary. There is colouring on a Norman

bracket in the centre of the recess, and on the arch on either side. On the lower part is a design of squares enclosing roses, geometrical patterns, &c., and with a border of flowing zigzag below. This is all of a grey colour, and may be late twelfth century. Of the next series is a figure of St. John the Baptist on the south side, viz., his head and right hand upraised, while the left hand holds the medallion containing the *Agnus Dei*. Of the third series is a large female saint with left hand on the breast on the north side of the subject. This may portray the Blessed Virgin, and appears to be of the fourteenth century. Of the upper series are parts of a large representation of the Crucifixion. Our Lord on the Cross occupies the centre, with a large figure of St. John the Evangelist on the sinister side, and the head of the Virgin with a red nimbus, mixed up with the large figure of the earlier series on the dexter side. The date of the Crucifixion is probably fifteenth century.

The walls of the little chapel of the Hospital of St. Margaret, in the same town, are covered with subjects, but none can be made out, except possibly St. Christopher opposite the main entrance. There is some nice decoration with diamond-shaped panels enclosing lilies, of about the date 1270.

At Axmouth, in Devonshire, some interesting discoveries were made shortly before a visit paid to the church in October, 1892. On the east respond of the nave arcade is a figure, four feet high, probably of St. James Major, as he is holding a pilgrim's staff. On the next pillar is a figure of Our Lord, with arms and legs bare, and hands upraised so as to show the wounds. On the south wall of the south aisle is a large painting of the Martyrdom of St. Erasmus, somewhat indistinct, but the main details of this unpleasant subject are clearly discernible. It appears to be of the fourteenth century.

At Downton Church, Wiltshire, visited in September, 1891, was a subject on either side of the west doorway, on the west wall of the nave. That on the north probably represented the Nativity, though it is not very clear. At the interesting church of Ramsbury, visited in 1895, a picture of St. Christopher was discovered, but not preserved.

In Berkshire some early decoration was found at Pad-

worth Church: In the apsidal chancel are two Consecration Crosses, and two more in the nave, all probably of the Norman period. On the east wall of the nave, to the south of the fine Norman chancel arch, is a large figure of a bishop, probably St. Nicholas, and, below, a small subject, somewhat obscure, but apparently St. Nicholas restoring the three children to life. There is also a portion of another subject on the south wall. The whole seems to date from the Norman period. A painting of the Crucifixion was also found on the east wall of the apse, and destroyed.

At the neighbouring church of Aldermaston portions of the Rood Screen, with remains of decoration, have been utilised for the framework of the bells, and two parts of the Rood Beam similarly ornamented are preserved in the belfry. A gilded and painted boss from one of the old roofs forms the centre of the sounding board over the fine old Jacobean pulpit. The large alabaster table tomb, with effigies of Sir George Forster and his lady (she died in 1526), also bears traces of colouring on the effigies, the canopies over the weepers at the sides, and the coat of arms on the shield at the west end. Within the past few days the walls of the transept have been examined, and an accumulation of bricks, plaster, deal battens and laths removed before the original surface could be reached. This has been mainly decorated with a masonry pattern of double red lines, enclosing roses, and with a nice scroll pattern round the head of the south window. On the east wall is a large niche for image of the Virgin, and on the south a piscina, both similarly decorated, and all dating from about 1320–1350. On the south wall to east of south window is a large portraiture of St. Christopher, on the same wall surface, and therefore, probably of this same date. The saint is bareheaded and lightly clad, and holds a peculiar kind of staff in his right hand, with an object at the bottom, perhaps for spearing eels. There are several fish and a mermaid in the water. He bears the Infant Saviour on his left hand, which is upraised, and arm, as in some of the earlier examples.¹

¹ Another early example of St. Christopher was discovered some little time back at the church of Stanford

Dingley in this same neighbourhood, but it has unfortunately been destroyed.

Our Saviour is holding the orb in the left hand, and giving the Benediction with the right. The whole is under a triangular canopy with nice cinquefoiled fringe. The only colour apparent is red. The position of this subject is unusual; but there is a Norman doorway, now blocked up, on the north side of the nave, through which the picture can be clearly seen, as also through a cinquefoil-headed low side window at the side of the doorway. On the opposite side of the window is the masonry pattern, and on a later, and unfortunately very tender, layer of plaster a large subject. There is a very rich canopy in yellow surmounting a building (? a chapel divided into two compartments by a central shaft), and with very delicate pink colouring on the under side of the canopy. In the lower part is the head of a young man with low velvet cap and two feathers, and with nimbus, bending or kneeling before an altar, while above is an angel bearing a mitre and descending to him. It is difficult to identify the subject, but the date is clearly of the middle of the fifteenth century. On the east wall above the recess for the image, painted over the masonry pattern, is a subject in three tiers of compartments. In the lower tier are two ships; in the next apparently two ecclesiastics with pastoral staves, and above again some more figures. There is a powdering of roses over the picture. The whole is very indistinct. On the north wall of the nave facing the transept are three sets of the Commandments painted one over the other, and probably of the sixteenth, seventeenth, and eighteenth centuries. Traces of colour are also visible on the jambs of the east window of the chancel and elsewhere, and it is hoped that several more paintings will shortly be brought to light.

At Sulhampstead Abbots a good deal of painting was found some years back, of which only some decoration on the east arch of the nave arcade now remains. Portions of a St. Christopher on the north wall of the nave, and of the Martyrdom of St. Thomas à Becket over the south doorway were brought to light, but in too fragmentary a condition to be worth preserving.

At Sonning a very late portraiture of St. Christopher was found in the north porch over the doorway, an

unique instance of a painting of the saint in this situation in England.¹

At Ashampstead, already referred to, some thirteenth century paintings were discovered in 1895. There is some nice scroll and foliage on the north wall of the chancel, and over the chancel arch a large representation (? of the sun), and either the Crucifixion or the Doom; but it is very indistinct, as most of the surface has been hacked away. On the north wall of the nave is some more of the scroll foliage pattern, and representations of the Annunciation, Salutation, Nativity, and the Angels appearing to the Shepherds, no doubt the first of a series of New Testament subjects such as we find, of about the same date, at West Chiltington Church, Sussex. A very nice Consecration Cross has more recently been brought to light.

At Inkpen, during the restoration of the church in May, 1896, an interesting painting has been found, in addition to some masonry patterns of double lines and scroll decoration, and traces of subjects in deep red and yellow on the east walls of the chancel. On south of east window are perhaps two figures, one holding a scroll. On a stone, formerly one of the voussoirs of the splay of the original east window, are several small heads of females outlined in red and with yellow hair. There are traces of texts of various dates on the walls throughout the church. On the south wall of the nave by the south doorway is part of a large and curious subject, viz., the upper portion of an apparently nude male figure with curly hair. On either side of his head hangs the scale of a pair of balances suspended above, while a pair of bellows are directed towards his left ear; above on this side is a bugle horn, and below (?) a gridiron and pair of shears. On the dexter side is what looks like a bell swung upwards on its framework. The male figure is in white or pale flesh colour outlined in red. This painting seems to portray the subject of the Christian Representative surrounded by certain implements, and possibly commemorates some guild of metal workers formerly existing here. Similar representations have been found at Hessett, Suffolk; Stedham, Sussex; Lanivet, Cornwall;

¹ Hugh Pearson, *Memorials of the Church and Parish of Sonning*, p. 32.

Michaelchurch Eskley, Herefordshire; and Gumfreston, Pembrokeshire; and possibly also at West Chiltington, Sussex. Most of these are of late date, and the example at Inkpen appears to have been executed when some additions were made to the church, late in the fifteenth century.

In Oxfordshire a great many additional examples have been brought to light since the publication of the last edition of the *List of Mural Paintings*, &c. At the noble church of Burford gilding and colour is everywhere visible, and in a small chapel on south of south aisle are several subjects, one referring to St. Thomas à Becket.

At Bloxham, in addition to subjects previously discovered, is part of the Doom over the chancel arch; and on the south wall of the Milcombe Chapel the history of a female saint, perhaps St. Catherine, with Our Lord in Glory above. On the panels of the chancel screen are the Evangelists with their emblems (St. Luke altogether effaced), and other saints, one probably St. Sebastian. Rich decorative painting remains on various parts of the church.

At Barford St. Michaels is some very nice scroll and foliage on the west wall and elsewhere, and the panels of the chancel screen are painted red and green alternately.

At Broughton, in addition to the subject of the Five Joys of the Virgin, which remains on the north wall of the chancel, some large paintings had been laid bare in the nave, shortly before a visit paid to the church in 1884. Over the chancel arch had been portrayed the Doom, and on the north wall of the nave a very large representation of St. Christopher with scrolls above, and over the blocked-up north doorway a picture of St. Michael Weighing Souls. Some early inscriptions on the south wall show that other subjects had been depicted there.

At North Stoke, visited in January, 1884, some discoveries had recently been made. On either side of the chancel arch, on the east wall of the nave, were traces of subjects: that on the north portraying an ecclesiastic holding a large cross, and a small figure in a ship near him. On the south wall are three tiers of paintings apparently exhibiting the legend of a female saint. In

the middle tier are two scenes, one the saint being led blindfolded before the Governor or Magistrate, who is seated and holding a large sword; and, secondly, the same saint surrounded by several figures, grasping a book pressed to her bosom in one hand, and holding out the other to receive a cup from which flames are issuing, and which is probably intended to typify poison. The date of the paintings is thirteenth century.

At Long Coombe the restoration of the church brought to light numerous interesting paintings which were inspected in March, 1893, during the progress of the work. Traces of colour were visible on either side of the east window, on a decorated niche in south-east corner of the nave, on the east beam of the nave roof, on the jambs of the Norman south doorway,¹ and on the walls of the south porch. Over the south door on the interior wall are two tiers of texts, the earlier of the seventeenth century, with large figures of Moses and Aaron on either side. These have been painted over a very large representation of St. Christopher, of which subject only the following accessories were then visible, namely:—On the east side a curious spotted animal (? an otter,) and a large fish like a pike, and on the west side two more large fishes of similar character, and a partially nude figure of a mermaid. Over the north doorway another large subject is mainly concealed by the Creed and Lord's Prayer. Part of the bordering, and a curious animal were only then discernible. To the east of this is a female saint crowned and holding a sword, probably St. Catherine, under a nice canopy of fifteenth century date. On the east wall of the nave to the north of the chancel arch is a representation of the Crucifixion, probably of fourteenth century date. In the centre is Our Lord on the Cross, with nimbus and crown of thorns, and blood flowing from His wounded side; the veins on His arms are curiously portrayed. On the south side is the Virgin Mary, nimbed and holding a book, with green dress and kerchief over her head, and on the north is St. John, also with nimbus. A later and larger representation of the same subject has been painted over, and is much mixed up with it. The head and arms,

¹ On the Norman doorways of Pyrton and Brize Norton, in this same county, colouring is still discernible.

and blood flowing from the wounded side of Our Lord, can still be discerned, and a wavy pattern above, and powdering of leaves or pomegranates also remain. There is a curious bordering in chocolate and white, and a zigzag pattern in chocolate enclosing leaves, apparently of the earlier date. There is also part of a late text and border on the wall above. On the south side of the chancel arch, also on the east wall of the nave, is another representation of the Crucifixion, of the same date as the later one on the north side. Here Our Lord is portrayed with nimbus and crown of thorns hanging on the Cross, which is painted yellow, and picked out with red lines. On the north side is the Virgin with red mantle, and on the south St. John with green vestment and red cloak, apparently holding a book. The ground of the picture is chocolate with a powdering of pale grey leaves or pomegranates. The wall above has been only partially explored, and a portion of a text with border and date (? 1633) discovered.

At Thame the fine parish church was undergoing restoration when visited in February, 1890, and a considerable amount of colouring was being brought to light; on south wall of south aisle remains of subjects mixed up with texts; on south-east pier of central tower a female saint under a large embattled canopy, with red background; and in the south wall of the chapel on east side of south transept a large effigy of an ecclesiastic, of thirteenth or fourteenth century date, very richly coloured. A portraiture of St. Helena is also reported to have been discovered.

At Brightwell Baldwin, visited on the same day, is an old chest, on the front of which is painted the combat between St. George and the Dragon. St. George, on horseback, is thrusting a long spear into the jaws of the prostrate dragon, of which only portions remain, while the Princess kneels above it, and a nice scroll border encloses the picture, which is of early fifteenth century date. These painted chests are by no means common, and in the *List of Mural Paintings*, &c., only thirteen examples are cited. Two others, besides the one at Brightwell Baldwin, have since been noted, viz., at North Shoebury, in Essex, where the chest has some foliage in white on a red ground painted on it, and at Sawtry, in Hunting-

donshire, on which are depicted St. Edward the Confessor and St. Edmund.

At Ducklington considerable remains of paintings, probably scenes in the Passion of Our Saviour, &c., were found on various portions of the walls; but on the occasion of a visit in March, 1893, the only important picture remaining was one of the Blessed Trinity portrayed in the usual manner on the south splay of the east window of the south aisle.

At Standlake, visited the same day, the walls had been thoroughly scraped, so as to expose the rough inner surface of the masonry, and paintings of St. Christopher and other subjects, which had been recently discovered, had been destroyed.

At the neighbouring church of Northmoor, also visited at the same time, is some very interesting mural decoration. In the north wall of the north transept are two recesses for founders' tombs, some remains of colour being visible at the back of the western one. Above each of them are paintings in vermilion and red, representing two angels holding a napkin, no doubt containing the soul of the deceased, whose armorial shields are also depicted on the walls. Effigies of a cross-legged knight and lady now lie near these recesses, both retaining traces of colour. They are of the time of Edward III, and are said to commemorate members of the De La Moor family, and may have originally occupied these founders' tombs. The armorial shields can no doubt be identified.

The recent discoveries of mural paintings at Little Horwood, Padbury, Winslow, Brill, and Oakley, in Buckinghamshire, have already been mentioned as having been fully described in Vol. XLIX of our *Journal*, and Vol. VII of the *Records of Buckinghamshire*.

At Bletsoe, in Bedfordshire, is a large painting, described in "the List" as "a knight on horseback," which, when inspected in August, 1886, proved to be a very large and complete representation of the subject of St. George and the Dragon. The painting is on the north nave wall and partly over the north doorway. St. George is in plate armour with the St. George's shield on his breastplate. He is brandishing a sword in his right hand, and rides a white horse with red trappings, which is trampling the

dragon under foot. The dragon is in the form of a large winged snake, and is impaled by the spear. Above, to the right, is the Princess and her lamb, and, to the left, the castle, with the King and Queen viewing the combat. There is also a kneeling figure, no doubt of the donor of the picture, with part of an invocation on a scroll; and over the head of St. George the armorial bearings of the donors, introduced as we occasionally find them at Chippenham, Cambridgeshire, and elsewhere. The figures are nearly life size, and the date late fifteenth century.

At Bolnhurst, visited the same day, a good example of the subject of St. Christopher was noted on the wall over the north doorway.

At Ramsey, in Huntingdonshire, a large figure in red was found on the nave walls a few years back, and at Broughton, visited in December, 1888, the subject of the Doom had just been laid bare over the chancel arch. It was of fifteenth century date, and introduced the usual features of that period. On the south wall of the nave at the east end is perhaps the Resurrection, and, below, Adam and Eve, the former digging and the latter spinning.

In April, 1887, a visit was paid to Molesworth Church, where some interesting paintings had been recently discovered. Above and at the side of the north doorway is an unusually fine example of St. Christopher. The saint is nimbed and with flowing locks. He is clad in a white tunic and red cloak down to the knees. He is bare-legged, and clasps a knotted staff, which has sprouted at the top, with both hands. He is marching from east to west, and is in mid stream, the water being full of fishes, two eels being also introduced, one of which is gliding over his right foot. He is gazing up at the Infant Saviour seated on his left shoulder, and holding the orb and cross in the left hand, while the right is raised in attitude of Benediction. On the west bank is a curious kind of cell composed apparently of lath and plaster, at the door of which stands the hermit holding a lantern at the end of a staff. The general groundwork is red, with a powdering of large white cinquefoiled flowers connected on slender stems. In the upper corner on west side is painted a shield with a chevron between three pheons, and apparently a crescent for difference. The tinctures are now not discernible, but

the arms appear to be those of the Foster family: Sable, a chevron ermine between three pheons, argent, and possibly of the Foster, who was Lord Mayor of London in 1454. On the east side is another shield with 1 and 4 on a fesse, three annulets or bezants, quartering, 2 and 3 the chevron between three pheons. These shields clearly commemorate the donors of the painting, which is in excellent preservation, and apparently of the latter part of the fifteenth century. On the south wall by the south door is another painting, but less distinct. On the west is a hermitage similar to that on the north wall: there is a faint figure of a hermit holding a bell in the left hand and the cross in the right, while a pig with bell round its neck is jumping up to him. There are some quaint trees in the lower part, and foliage somewhat similar to that in the other picture. The ground is red. A rich border of wavy foliage on a red ground is carried round the painting, which of course portrays St. Anthony. The date is the same as that on the north wall.

In Cambridgeshire several recent discoveries of mural paintings have been made besides those at Willingham which will shortly be described. At Quy, visited in May, 1884, were some rather indistinct subjects over the chancel arch, and on the south wall of the nave, probably a representation of The Doom, as at the east end of the south wall are traces of flames and a demon. On the north wall, opposite the north door, are portions of a St. Christopher. On east beam of nave roof are painted stars, and on a niche on east wall of nave on north side of chancel arch a small figure in the centre surrounded by white stars on a blue ground.

At Tofts Church, visited in June, 1885, the fragments of a very beautiful alabaster reredos were preserved, with portions of figures of Our Lord, St. Christopher, a Bishop, and of a saint with the head broken off, holding a large golden key, with white hart with gold collar by the right foot, and another animal—(?) a red pig—licking the left. The whole was much enriched with colour and gilding.

The very interesting series of mural paintings at Chippenham, discovered in 1886, and visited in October of that year and subsequently, have already been referred to as having been fully described in the

Cambridge Antiquarian Society's Journal, Vol. V, p. 321. In 1893 some additional painting was found in a recess at the east end of the north aisle. There are three distinct layers of colouring. The earliest is on the lower part of the recess, below the old altar stone, and represents the folds of a curtain in red. This may be of late twelfth or early thirteenth century date. Over this has been painted a design of double masonry lines of the end of the thirteenth century. Above the altar stone is the masonry pattern, and on either side a large nimbed angel with large wings swinging a censer, and with censers above. There seems to have been a central bracket—(?) for an image of the Blessed Virgin. Round the arch, which is obtusely pointed, are large leaves all in chocolate, which is the colour employed to outline the angels and censers.

At Burwell, visited in October, 1886, was a very large and late portraiture of St. Christopher, then recently discovered.

At Shudy Camps the walls had just been partially divested of whitewash, on the occasion of a visit to the church, in August, 1895. In two or three places early texts with yellow borders, possibly of the time of Edward VI, had been discovered; also some scroll work in red; part of a large subject on the south wall; and an angel on the east portion of the south wall, which had not been preserved. Over and at the sides of the chancel arch is a painting of The Doom, all the figures being depicted in deep Indian red. In the centre is Our Lord seated in majesty, with several angels on each side. The hands are not clear, but are probably—the right raised in attitude of Benediction, while the left is pointing down in act of Condemnation. On His right kneels the Blessed Virgin in attitude of Supplication, while on His left is another nimbed figure, probably of St. John the Evangelist. Behind the Virgin are the Heavenly Mansions, with angels above them, and in front St. Peter with keys, but not very distinct. Below may be the pillars or foundations of heaven represented by two upright columns with apparently a figure between them. Round the arch is a procession of figures: those on the north advancing to the Heavenly Mansions, while those on the south are encircled

by a chain and are no doubt being dragged down to the jaws of Hell, which are, however, not now discernible, but three black demons are visible on this side. A large red patch below the spring of the arch may indicate the spot where the jaws of hell were portrayed. There is a wavy border on the lower side. The date of the painting is fifteenth century.

At the neighbouring church of Bartlow is a painting of St. Christopher which is mentioned in the *Gentleman's Magazine* for 1822, Part II, p. 305. It is on the south wall of the nave, and only the upper part now remains, but it must have been an unusually large and fine representation of this familiar subject.

On the occasion of a first visit to Willingham Church in 1881, one could not help being struck with the beauty of the sacred edifice, and at the same time with its neglected appearance, and the wonderful accumulation of whitewash on the interior walls. Traces of paintings and decorative colour could be made out over the chancel arch, on the walls and arches in the nave, and on the eastern portion of the north aisle roof; and colouring had been also noted on the nave roof and fourteenth century screen. All traces of neglect have now happily been removed, and under the guidance and personal supervision of the present rector, the church has been thoroughly and carefully restored and reopened for divine service in 1895. It consists of western tower and spire, nave, aisles, south porch, chancel, and sacristy on the north side. The church, as we now see it, is mainly of the Decorated Period, but a lancet window in the west wall of the south aisle was brought to light during the restoration, as were other remains of the Early English period in the chancel and aisles. Some very nicely carved stones, with the chief part of a Norman doorway found during the process of the work, prove the existence of an important church in the twelfth century, and a lattice work pattern on the reverse side of some of the voussoirs carry us back to a still earlier period. One of the most interesting features in the church is the sacristy on the north side of the chancel, with an acutely pitched stone roof. This is of fourteenth century date, and is figured in the *Glossary of Architecture*. The

sedilia and piscina on south of chancel, the south porch of the nave, and the tower and spire are all fine examples of decorated work, while the screen across the north aisle is an excellent specimen of the same period. The nave roof is very beautiful, of the hammerbeam type, of the fifteenth century. It is said to have been brought from Barnwell Priory, and clearly was not constructed for its present situation. The architectural features of the church, and the various discoveries made during the course of the restoration, are well described in a paper read by the Rector in November, 1894, before the Cambridge Antiquarian Society, and since published as a pamphlet by A. T. Naylor of Cambridge.

Owing to information received as to the discovery of interesting paintings, a second visit was paid to the church in February, 1894, and a third in May, 1895, when the work of restoration was approaching completion. In the chancel, the only colour, now remaining, is on a bracket supporting a niche for image in the east wall to the south of the east window. The most important remains are on the walls of the nave, where at least four or five series of paintings have been brought to light. The earliest appears at intervals on the eastern portions of the north and south walls, and consists of a diaper pattern of pomegranates or leaves in yellow and deep red on a pale red ground.

Over the chancel arch has been an elaborate painting of The Doom. The upper part has been destroyed or concealed by the present east window and roof, and only the feet of Our Lord remain. On the north side numerous nude figures are rising from their graves, the ground-work being painted a dark green, while an angel is blowing his trumpet above. On the south side are also several nude figures rising, and in the usual situation the jaws of Hell are portrayed. A demon at east end of south wall is holding a chain, which is no doubt encircling the condemned and dragging them down into the jaws of Hell. There is also an angel above on this side of the picture. The date may possibly be of the fourteenth century, and belong to the second series of paintings.

On the south wall, over the eastern arch of the nave arcade, is one of three subjects relating to the Blessed

Virgin, and probably of the third series of fifteenth century date, namely the Salutation or Visitation. St. Elizabeth on the west is saluting the Blessed Virgin to the east of her. Both wear white dresses and pale blue cloaks trimmed with ermine. Elizabeth has also a hood, and both have yellow nimbi. Above are scrolls in black letter, deciphered by the Rector as follows:—"Magnificat mea anima dominum," and "Beata tu es inter mulieribus." Along the south wall over the two east arches are three shields, probably of the earliest period, charged with the emblems of the Passion, namely the east with the crown of thorns, the next with the five wounds, and the west one rather indistinct, with a pillar or cross, and two scourges or nails. Over this second arch are traces of a large figure, one of a series of Apostles or Prophets of post-Reformation date, which have been delineated over the earlier paintings. To the west is part of the Assumption of the Virgin, of the third series, namely the lower part of the dress of a female figure in ermine robe, apparently in black and white, with an archangel at the feet. Over this third arch is a trace of a large figure, and another one further west, both of the series of the Apostles. Between the third and fourth arch is an inscription in small red letters of early character. Between this and the next arch, and partly above it, is a seventeenth century text, or, according to the Rector, part of the Ten Commandments, and the outline of another Apostle—query, St. James Minor, with club; and further west three more large figures: (1) of Faith holding a cross and cup; (2) of Hope with an anchor, and (3) of Charity with a child. These are of the same date as the Apostles. The arches themselves have remains of a chevron pattern in three colours on the chamfered edges of the mouldings and a scalloped border in red above. This belongs probably to the earliest period.

Over the west tower arch are faint traces of a large subject. On the north wall of the nave, commencing at the west end, is a large figure of Justice with sword and scales; and no doubt the other cardinal virtues—Fortitude, Prudence, and Temperance—were also here portrayed, but they have disappeared. There are traces of another

figure and late texts between the arches. Facing the south doorway, on space between the second and third arches from the west, is the legend of St. George and the Dragon, large but not very clear: St. George on horseback, and riding from west to east, is trampling the prostrate dragon under foot. His spear is broken, and he is brandishing his sword in the act of dealing the finishing stroke to his vanquished foe. In the left hand corner are the King and Queen looking on from their castle; the Princess and lamb can also be made out, and there is said to be a demon discernible on the east side of the picture. A cable border on dark grey ground encloses the painting, which seems to belong to the second, or fourteenth century, series. To the east of this come two more Apostles, the eastern one probably St. Simon with saw, and then between the second and third arch from the east, a large portraiture of St. Christopher. He wears a low kind of cap, red tunic and cloak, and has both legs bare below the knees. He is carrying a sort of pilgrim's staff, and is travelling from west to east. He holds the Infant Saviour on the left arm, as in the instance at Wellow—not on the shoulder, as is almost invariably the case. Our Lord, as usual, is giving the Benediction with the right hand, and holds the orb and cross in the left. Numerous fish are disporting themselves in the water. The figure of the Saint is about ten feet high. The ground colour of the picture is red. It is of the same date as the St. George. These two subjects are often, as here, represented side by side, and a list of examples is given in the *Antiquary* for 1883, Vol. VIII, p. 194. Adjoining this, and over the east arch but one, is the Annunciation, rather faint, belonging to the third series. The Blessed Virgin, to the east, is habited in a blue robe and kneels at a fald stool, while St. Gabriel, with sceptre and scroll, is on the west. There are also scrolls with black lettering above. Parts of an Apostle with open book are mixed up with it. Next come three heraldic shields: the east has the arms of the See of Ely—gules three crowns or, and the west is charged with a lion rampant. The tinctures are not clear; but if they can be, azure a lion rampant sable, the shield no doubts commemorates John de Kirkeby, who was Bishop of Ely 1286–1290; and as

these shields appear to form part of the original scheme of decoration, they will thus prove the exact date at which the earliest painting was executed. Above the eastern arch are faint traces of another figure, probably of the second series, and at east end another large Apostle with staff and wallet, probably St. James Major, or possibly St. John the Baptist. On the chamfered edges of the arches is a pattern of black wavy lines on a grey ground, and there are considerable remains of decorative colouring on the soffits and round all the arches of this north arcade. On the east wall, to the north of the chancel arch, is a Consecration Cross painted in red.

In the north aisle only slight traces of wall decorations remain. In the east splay of the east window on north side is some red colouring, and portions of a niche with stars on a dark green ground and beading in red.

In the south aisle, which was the last part of the church to be explored, considerable remains have been brought to light. At the west end the original western lancet window was found walled up, no doubt at the time when the aisle was enlarged in the Decorated Period. On either splay was a masonry pattern in double red lines, enclosing a plain scroll, and six-leaved roses in red of date *circa*. 1260. Painted over this, but not much later, is the figure of a female Saint; that on the north side has a kerchief over her head, the hair marked by crimson lines, and the face similarly outlined. She wears a red cloak with yellow lining, white dress and red shoes. She holds two palms in her right hand, and a book with yellow cover ornamented with intersecting red lines in her left. The figure on the south splay is not so distinct. She, too, has a kerchief over her head, yellow cloak with white lining, red dress and shoes. She holds a book in the left hand, but the right is not distinguishable. The colouring is very bright. The figures are about three feet six inches high.

On the west wall, to the south of the present decorated west window, low down, is part of a large but confused subject, the heads of two crocketed canopies, with a shield on a deep red ground, and the head of a bearded man, are the only portions discernible. Along the south wall are several large texts within elaborate borders, which may be as early as the sixteenth century.

On the east wall, on south of east window, are probably four layers of painting, viz., first, a late text, then a guilloche border on yellow with red lines, no doubt to another text, probably about 1550, then a masonry pattern of double lines, and then on the wall itself vermilion colouring. This and the bordering are also apparent on the north side of the window.

Besides the wall paintings, there are considerable remains of decoration on the woodwork. As has been already stated, traces of colour have been found on the beautiful hammerbeam roof in the nave. On the eastern portion of the north aisle roof, the rafters are alternately painted red with a feathery pattern in white, and green with a similar decoration in black. The panels of the pulpit, which is of wood, and of fifteenth century date, have been painted green. The chancel screen, of fifteenth century date, has had the panels painted red and green, and the tracery of the compartments on the north side, the only part remaining, has gold, red and green on the mouldings, and a red rose in one of the spandrels. The south aisle screen, of similar date, has also traces of colouring. These screens were all smothered in white paint at the time the restoration of the church was commenced.

By far the most interesting screen is that forming a parclose at east end of north aisle, and dividing it off from the rest of the aisle, and the east bay of the nave. It is of fine decorated character of early fourteenth century date. On the portions between the aisle and chapel the panels are painted red, and the carved mouldings red and green. Between the nave and chapel the boards forming the lower panels have been transposed, but the design is still clear and very curious. On a red ground are a series of popinjays set lozengewise in groups of four round a central star encircled by a beaded band. The birds are much like the parroquets of our day. No similar scheme of decoration appears to have been noticed in England. At South Leigh in Oxfordshire, on the east wall of the nave, is an elaborate pattern of scroll foliage with birds (supposed to be parrots) introduced amidst the foliage.

Such is the record, and in most instances a somewhat superficial one, of the discoveries of the more interesting

mural paintings which have been noticed in the South of England since 1883. In the majority of the cases the opportunity has been seized of personally inspecting the paintings soon after their discovery, and in some instances this paper will contain the only record of their brief exposure before their final destruction or concealment by a fresh covering of plaster being laid over them. No doubt the imperfect condition of most of the paintings is a bar to their preservation, and it is therefore important that, as far as possible, notes should be made of these subjects as soon as possible, so that we may apprehend as far as we can the spirit which actuated our forefathers in the adornment of their churches in early times.

Proceedings at Meetings of the Royal Archaeological Institute.

April 1st, 1896.

E. GREEN, F.S.A. (*Hon. Director*), in the Chair.

Mrs. A. KERR exhibited a model of an Etruscan tomb found near Orvieto.

Mr. H. WILSON exhibited a book of sketches of churches in Cheltenham and the neighbourhood.

Mr. W. H. ST. JOHN HOPE, M.A., read a paper on "The Monastic Buildings of the Benedictine Abbey of St. Peter at Gloucester," describing the buildings and contrasting the arrangements with those at Canterbury and elsewhere. By the aid of the Ordnance Survey and other plans Mr. Hope was enabled to trace the limits of the ancient monastery.

May 6th, 1896.

JUDGE BAYLIS, Q.C., V.P., in the Chair.

Mr. C. E. KEYSER, M.A., F.S.A., read the second instalment of a paper entitled "Recently Discovered Mural Paintings at Willingham Church, Cambridgeshire, and elsewhere in the South of England," the first part of the paper having been read at the February meeting. This paper is printed in the present number of the *Journal*.

Dr. A. A. CARUANA, Director of Education at Malta, communicated a paper on "Great Stones at Gozo, Malta, explored in 1893." This paper is also printed in the present number of the *Journal*. In illustration of the paper Sir Benjamin Stone, M.P., exhibited a large series of photographs of the stones themselves, and remarked on the advisability of the Government taking steps to preserve the remains of these ancient and important ruins from the reckless hands of visitors.

June 3rd, 1896.

JUDGE BAYLIS, Q.C., V.P., in the Chair.

Mr. J. A. FULLER MAITLAND read a paper on "The Fitzwilliam (commonly called Queen Elizabeth's) Virginal Book." Mr. Maitland illustrated his paper by performing compositions taken from the manuscript on a sixteenth century virginal kindly lent by Mr. A. Dolmetsch. The paper is printed in the present number of the *Journal*.



SOME NOTES ON THE STUDY OF OLD PARISH CHURCHES.¹

By J. T. MICKLETHWAITE, F.S.A.

Many an otherwise excellent parish history fails badly when it comes to the fabric of the church. And this is true not only of those which were written in the dark ages of architectural knowledge, but, with few exceptions, of those which have appeared in recent times. The new writers have a larger architectural and ecclesiological vocabulary than their predecessors, and the dates which they give to windows and other features are generally nearer the truth. Few attempt to go further in their enquiry than the dating of such details; very rarely is the description of a church accompanied by a good plan, and sometimes there is none at all, although without a right understanding of the plan it is impossible to work out the story of the church. The details are indeed most valuable helps; but the real essence of the building is in its walls; and unless the relation of the details to the walls is properly understood, the details may easily lead the enquirer wrong.

Those who have the arrangement of our conference, thinking that this subject might properly be brought forward there, have asked me for a paper upon it. And in accepting the invitation I have tried to put together a few notes which may be useful to those who wish to work out the story of a parish church for themselves.

The subject is not quite a new one with me, and I will venture to begin with a reference to a paper on "The Growth of a Parish Church," read to the Archæological Institute, at Lincoln, in 1880, and printed in Vol. XXXVII of the *Archæological Journal*.

In that paper I tried to show that nearly all parish churches, as we see them now, have grown from smaller ones of earlier date; that generally the story can be traced back to an aisleless building of the twelfth

¹ A paper read before the Congress of Archæological Societies, 8th July, 1896.

century; and that there was a normal order of growth seldom departed from without cause. To this I would now add that in many more cases than I had any idea of in 1880, the germs from which the buildings have grown are older than the twelfth century, and that in a few they are of the thirteenth, or later, though we may have written evidence of the existence of churches in those places in older times. But the order of growth from the earlier and later plans is the same as that from those of the twelfth century. The buildings were without aisles at first, and may be roughly classified as those which had towers at the beginning and those which had not. The original towers were central, and often, though not always, they were flanked by transepts. This form, which seems to have been reached early in the eleventh century, was the architectural beginning of most of our larger parish churches, though but few of them now keep either the cross form or the central tower. The smaller churches have grown from the simpler plan of nave and chancel only, which is far older than the other. In each type we find both apses and square east ends, the apse being sometimes formed by the bending round of the chancel wall and sometimes separated by a cross arch, and made a distinct division of the building.

Starting from one of these beginnings the first step in the enlargement of a church was generally the addition of a north aisle to the nave, and that was often followed soon by one on the south. These aisles, as time went on, were in many cases widened—sometimes more than once—so that where there were transepts the aisle walls came to line with their ends, and often the transepts disappeared altogether. This stage was generally preceded by the removal of the central tower, which had either fallen or been taken down because it was unsafe. I think that never in the old days, except perhaps in a very few rich trading parishes, would men have voluntarily taken down their tower to replace it by a better. The undertaking was too great. To build a church tower was the work of a generation or more, and therefore, when men already had one, even if they were not satisfied with it, they would rather try how they might improve it than think of building a new one.

When a tower came down of necessity, its rebuilding was often not attempted till after a long interval, and it was seldom done in the old place in the middle of the church. Our fathers used their churches on seven days in the week; and although they were willing to put up with a temporary inconvenience for the sake of a permanent gain, they were careful always to arrange their works so as to interfere as little with the use of the church as might be. The gap in the middle of the church where the tower had been was therefore roofed over and made decent, and in due time, when the new tower was begun, it was placed outside the church at the west end of the nave, or in some other position the reason for which may even now sometimes be traced. When built the tower was generally joined on to the church by a slight lengthening of the nave, or otherwise according to its position.

The addition of a tower to a church which had not had one before was done in the same way, and this, with other works done to both on parallel lines, brought churches which had been begun on different plans nearer and nearer together until sometimes it is only by careful search that it can be determined from which of them one has grown.

The clearstory often followed the west tower, but was sometimes used without it.

The changes in the chancel, though much alike, were not quite so uniform as those in the western division of the church. After the twelfth century it seems to have been common to take down apses and replace them by square ends, and examples may be found in which no other change of plan has been made than this. There is a good one at Sidbury near Sidmouth, and another at Meriden, near Coventry. The loss of a central tower necessarily led to considerable work in the chancel, and sometimes to its rebuilding. Chapels in the form of aisles were added on one or both sides, and in some large churches clearstorys. The final development of the old English church plan was reached as early as the fourteenth century in a few churches—St. Nicholas's, Lynn, for example—and became common in towns in the fifteenth and sixteenth. In this transepts have quite

gone; the chancel-arch is taken away, and the arcades and clearstory are carried uniformly from east to west. The divisions were made by screens, and when properly furnished this is a fine type of church. The contrast between it and the aisleless cross church of the twelfth century is great. Yet in many cases one has grown by regular steps from the other.

The story I have told is true of nearly every old English parish church, more or less. A few keep the form of their first laying out, and have received changes of detail only; others started on the course of change even before their first building was complete. Some went but part of the way, and others ran the whole course. Some took four centuries to do it, others did it so quickly that they are quoted as examples of churches built new and all at once from the ground, which close study shows they were not. Others again, although their growth has been quite normal, have had their earlier parts rebuilt or so considerably altered that at first sight they seem to depart from the general rule. And very often the evidence of an earlier state of things is to be sought not in actual remains, but in the influence of the older work upon the form of the newer which replaces it.

If we wish to read the story which an old church has to tell we must begin with the plan, and always keep in mind the conditions under which the work was done. The most important of these are what I have just mentioned when speaking of the tower, namely, the unceasing use of the church and the economy, which, although it did not prevent works of improvement, was careful to prevent the demolition of what might be worked in with the improved state of things.

One of the commonest sources of error in church description is the assumption that a wall is of the date of the windows in it. The text books tell the student much about windows and nothing about walls. He sees the windows and dates them properly, but has no eyes to distinguish those which are inserted from those which are contemporary with their setting. Now, it is scarcely too much to say that in country churches the walls are generally older than the windows. It is quite usual to find chancels with the windows and roofs of the fourteenth or

the fifteenth century, whilst the walls are of the twelfth or thirteenth; and aisles in like case are nearly as common. They are dated by the insertions until the busy "restorer" comes and hacks off the plaster inside and the roughcast outside, and makes much of himself for discovering that there are blocked-up lancet windows in the wall. These he probably proposes to open out and "restore," and, if he gets his way, finds himself sorely bothered by the want of relation between the lancet windows and the buttresses, which are of the later date, and were never intended to have any relation with them.

It is not always necessary to dissect the walls in order to ascertain their date. After a little training the eye can tell a good deal, and there generally remains something of the original besides mere walling—some string or plinth, the sedilia in the chancel, a piscina in the wall of an aisle, and nearly always the doorway is kept, though every window may have been altered.

It is not, however, always safe to assume that a wall is as old as the oldest feature in it. I remember a good many years ago being much puzzled to make out the story of Colwall Church in Herefordshire, until I discovered that the south doorway, though wrought in the twelfth century, was moved, and put where it now is, in the thirteenth. Such cases are not uncommon. Catterick Church, near Richmond in Yorkshire, is a rare instance of a parish church built upon a new site in the fifteenth century, but it is full of parts of the elder church which it replaced, and which stood close by. They are of many dates, and can easily be recognised in spite of one of the most abominable "restorations" which ever an unfortunate church suffered.

The most remarkable example of re-use which I have met with is a tall stone spire of the fourteenth century, which stands on the top of a Tudor tower at Stanion in Northamptonshire. I have seen it mentioned as a "broach" spire of "Perpendicular" date; but the case is as I say. The spire must have been first built on an earlier tower, which failed, and had to come down; but it was itself all clean ashlar work in excellent condition; and as the good people of Stanion in the days of Henry VII thought it was far too good to be lost, they took it down

carefully and put it in store; and when they had built their new tower, they set up the old spire again on the top of it. I hope their successors will take as good care of it. When I saw the church in 1894 it badly wanted mending.

Churches which have received their full development of plan have often nothing left in position of the first buildings from which they have grown. The most likely places to find any are at the outer corners of what were the transepts, if any trace of them remains, and in the spandrels of the main arcades, which, strange as it may seem, are often older than the pillars and arches which carry them.

This last-mentioned fact is due to a cause which also brought about most of the irregularities in the setting out of old churches, for which fantastic explanations are often given: and that is, the practice of building up as much of the new work as possible before the old was disturbed, and then pulling down as little of the old as might be, consistently with the carrying out of the new intention. It must be remembered that, in all but the few churches which have never been enlarged, much, if not all, that we now see was built on ground already partly occupied. The rule, the square, and the line were the only instruments then at the builder's disposal for setting out, and he had not the help of carefully scaled plans. The best work is done with wonderful accuracy; but often in the work of the local mason, especially in rural parts, we find evidence of bungling and stupidity which his modern descendant would find it difficult to beat.

We will take the case of an aisle having to be added to a nave up to then without one. At the best, a line is stretched at the required distance from the old wall and parallel with it, and if the old wall be straight and square the new one will be. But perhaps there is a porch in the middle projecting further than the width of the new aisle, and there are buttresses or turrets at the east and west corners which stand out unequally from the main line. This may be seen and allowed for, but it is equally likely that it is not. The ends were generally built first because they did not interfere with the access to the church. If the builder be of the careless sort he makes his two

ends equal in themselves, and when (perhaps the next season) the time comes for building the side wall, and the porch is taken down, the line is laid from one new corner to the other new corner with the result that the new wall is not parallel with the old one, nor with the arcade which will later take its place. Such or such like is the origin of most of the irregularities of plan which we find, including the chancels out of line with their naves. But sometimes the distortions are so great that they can scarcely be explained this way.

The outer wall being finished, I believe the roof generally followed next. But the arcade would do so if it were built outside the old wall as it sometimes was, and thereby made necessary some alteration of the nave roof, and, unless the same were done on both sides, shifted the centre line of the nave. But more often the new arcade was built in the line of the old wall, and so under the old nave roof.

To this point the inside of the church has not been touched, and its use has gone on without interruption. Now it becomes necessary to break into it, but the use is not suspended.¹ A slit is cut down the wall near one end, east or west, and in that slit a respond of the intended arcade is built up, and then at proper distance another slit is cut and a pillar built. Then the arch between them is built, stone by stone, only enough of the old wall being cut away to get them in. In this way the whole arcade was built, and the usual order seems to have been to begin at the ends and work towards the middle, which was probably done, that the doorway in the old work might be kept in use as long as possible.

There were opportunities for going wrong in this method of building, and sometimes they were made the most of. I had lately sent to me a note of a case at Throckmorton, in Worcestershire, where they had begun at each end and built two good arches each way; but the last two pillars got too near together for a like arch, and they had to put a little one in the middle.

¹ Sometimes we find licences issued for services to be held in halls or the like. They are always for short periods, and an examination of the fabrics of the churches in those places would probably

sometimes show that the dates of the licences correspond with those of the ending of some considerable works in the churches when the junction of the old and the new was being made.

There is another curious and instructive case at Scarborough. The old church there was a very early victim to "restoration," and has been scraped and tinkered worse than most. The part of present interest to us is the south arcade of the nave. The line of it is very crooked, which may partly, but not entirely, have been inherited from the earlier wall. The arcade was begun from the east end, and completed for two bays *and a half*, ending with the point of an arch, thus, I think, proving that the work was done in the way described. The half arch having the old wall below it to rest upon might safely be left for any length of time. The work was then taken up by a younger man, or at least by one of a newer school. I think there was little or no interval of time; but the "restorers" have restored very treacherously, and the reading of the story is as the deciphering of a palimpsest MS. But whether after a pause or not the new man began at the west end in his own fashion, and either did not know or did not care that his wall was considerably thinner than that of his predecessor. The meeting of the parts at the point of an arch is so clumsy that even the casual observer sees it and asks what it means. I think the explanation given here is the true one.

When the arches were finished the old walling within them was cleared away; but that above, if it were in good condition and otherwise fit, was left, and thus it is that often there under the plaster, and hung up as it were amongst the later work, is all that is left of the first stone church on the site.

In small country churches grown from the simpler type of original plan, the earliest work may often be found in the walls of the chancel or in the western part of them where an apse has been taken away.

In such churches more than in those of important places we find the alteration to have been in the form of improvement rather than in that of enlargement, and rebuilding was rare. Those who used a church might find it quite large enough, but old-fashioned and gloomy. So they enlarged one or more of the windows, and this, with the re-roofing which in many cases was made necessary by the decay of the older roofs, is enough to give the building the appearance of being much newer than it really is.

The changes are most conspicuous in the windows, and they went on all through the Middle Ages. Sometimes there is evidence to show that a window is the third, or even perhaps the fourth, that has been in that place, each being generally larger than that next before it. The gift of painted glass seems sometimes to have brought with it the alteration of a window to a later fashion without enlargement. Occasionally it may be observed that the jambs and outer order of the arch are older than the tracery within them, or that the jambs and mullions differ in detail from that which is above them, which suggests a difference of date.

This last criterion must, however, be used with caution. Another cause sometimes brought about a want of agreement between details which should have worked together, although the work is all of one date. There was a good deal of what may be called *New Road* business done in the Middle Ages. The centres of it were some of the chief towns and the principal stone quarries. A great trade was done in gravestones, which seem to have been kept in stock—those from Barnack, for instance, may be found far and wide through the Eastern and Midland Counties—and also the “yards” would execute mason’s work to order, and send it to the place of its destination to be fixed by the men on the spot.

Sometimes these were men of little skill, and made strange mistakes. I know a large east window set wrong way round with the broad splayed stone jambs to the outside. I will not say where it is lest I give a hint to someone to spoil it by “putting it right.” These unskilled country masons would sometimes undertake the simpler work themselves, whilst the more difficult was ordered from the quarry. A good example of this is the east chancel window of Babraham Church, near Cambridge. The jambs and mullions are local work and plain, but the tracery is moulded. Of course, the two do not work together; but they are made to fit after a fashion, and the effect is not bad.

Carpenter’s work of the best sort seems often to have been wrought at a distance from the place it was meant to occupy. And this may generally be the explanation of that seemingly reckless disregard for existing features

which is sometimes to be seen, where wall pendants are made to come in front of windows, and things are done which tell of an absolute indifference to anything but the work immediately in hand. But some of these "unconformable" roofs were very likely prepared to form parts of greater schemes of improvement which were never carried out. For example, the well-known double hammerbeam roof at Knapton, in Norfolk, now spans an aisleless and rather low nave; but it has so evidently been prepared for a lofty and many-windowed clearstory that it seems almost certain that they who ordered and paid for it must have had it in mind to build such a clearstory. If they had not, they must have been singularly foolish people.

The subject of misfits recalls the frequent story of this or that in a parish church having been brought from this or that abbey or priory at the suppression. It is not to be doubted that some such transferences¹ did take place; but in by far the greater number of cases the story has no foundation better than the imagination of some sexton, and it ought to be contradicted, as it may lead to mischief at the hands of men who, though they may hesitate about taking away what they think to be in its original place, have no scruples about pulling to pieces that which they believe has already been moved.

Before I bring this discursive paper to a close I should like to urge on any who would write the history of a parish church not to stop at the sixteenth century. Even of churches which have been well and reverently treated much of the later story must now be recorded in books and drawings. The high box pews, the galleries, and other things, which the Church reformer has done well to take away, are none the less material for the Church historian. We who have passed through it all scarcely appreciate how enormous has been the change in our own time. Even now there are grown men and women who can hardly believe that churches ever were as

¹ The tower of Wroxeter Church, Salop, is a singular example of the use of monastic spoils in a parish church. It is a large and well designed tower unusually rich in decoration, which, on being examined, is seen to be made up of architectural fragments dating from

the twelfth century onwards. There are sculptures from tombs, bosses from vaulting, and details of all sorts used in positions for which they were not intended, but combined with skill. The tower was probably built soon after 1540 with material from Haughmond.

nearly all were fifty years ago; and unless I greatly mistake, before the twentieth century sees its end, this dull, commonplace, workaday time of ours will seem one of the most important in history, and will even have acquired a glow of romance. Antiquaries will read papers about us, and novelists present fancy portraits of us to their readers. I leave the novelists to take their luck. They cannot do worse than men of good name have done before. But the future antiquary is my younger brother, and I should like to help him if I can. He will have learned enough of the dark ways of the "restorer" to make him suspicious of anything he may find in an old church unless he has some positive evidence about it which will enable him to see through and behind the havoc of the Grimthorpians and the meddling-tinkering of the less ignorant but more mischievous moulding-monger. Therefore, let the historian of any old church not only set down all that he can learn of its former condition, but record, before it is too late, what was the course of the "restoration" which his subject can scarcely have altogether escaped. The man of mouldings, if he find, say, a window which takes his fancy in a place where it has a meaning and a history, has a trick of making one or several copies of it and sticking them in places where they have neither, and then perhaps he smartens up the old one till it is as new as the others. Nothing can undo the mischief, but a record of the facts will keep alive the memory of the old window with some of the associations connected with it, and will caution posterity against the forgeries.

RUTUPIÆ.¹

By HENRY SHARPE.

There is no reason to doubt the correctness of the generally received opinion that Richborough Castle is the remains of the Roman military station Rutupiæ. It would therefore be a waste of time to discuss that point. There are, however, two other questions not yet settled, and which, as far as I can ascertain, have never been discussed. They are—Where was the harbour of Rutupiæ?—and How is it that there is no road from Canterbury to Richborough Castle? Richborough Castle is several miles from the sea. The principal road in those parts is the one from Canterbury to Sandwich, and a small road branches out at right angles to it and goes to Richborough Castle.

In order to work out these questions I have been to Richborough Castle, Sandwich and the neighbourhood, and have examined the country as far as Dover and the road from Dover towards Canterbury for a few miles.

Rutupiæ is mentioned in the following places in the classics. The quotations are arranged in chronological order, as far as possible:—

Lucan, A.D. 65, *Pharsaliæ*, Lib. 6, v. 64, poetry—

“Rutupinaque littora fervent.”

Ptolemy, A.D. 160, Lib. 2, cap. 3—

“Post quos maximi orientales Cantii, in quibus urbes Londinium, Darnernium, Rutupiæ.”

Antoninus, A.D. 300, *Itinerary*—

“Iter Britanniarum.

“A Gessoriacō de Gallis Ritupis in portu Britanniarum stadia numero CCCCL.”

“A vallo ad Portum Ritupis.”

“Ad Portum Ritupis.”

Ausonius, A.D. 350, poetry—

“Rhutupinum latronem.”

“Rhutupinus ager.”

“Tellus quem Rhutupina tegit.”

¹ Read at the Canterbury Meeting of the Institute, July 27th, 1896.

Ammianus Marcellinus, A.D. 375, Lib. 2, cap. 1—

“Ad Rutupias sitas ex adverso defertur.”

Lib. 27, cap. 8—

“Defertur Rutupias stationem ex adverso.”

Peutinger's Tables, A.D. 399, Segment I—

“Ratupis.”

Orosius, A.D. 417, Lib. I, cap. 2, par. 17—

“Quæ dicitur Rhutupi portus.”

Notitia Imperii Romani, A.D. 425—

“Rittubis.”

“Rutupis.”

The spelling varies very much, and, what is more important, the name varies. Sometimes it is Rutupia, sometimes the harbour of Rutupia, and once the military station Rutupia. I avoid the use of the word “port,” because that is used sometimes for “harbour,” sometimes for “town.” The variation in the name seems to suggest that the military station and the harbour were not close together. In addition to the quotation given about the military station, we know from the *Notitia Imperii Romani* that a legion was quartered here.

In order to make my case clear it is necessary to examine the principal roads in this part of the country and to show what changes have taken place in the coast for some distance on each side of Richborough Castle.

Antoninus, in his *Itinerary*, makes the road from London divide into three at Durovernum, now Canterbury, and go—

“Ad Portum Ritupis XII m.p.

Ad Portum Dubris XIII m.p.

Ad Portum Lemanis XVI m.p.”

His distances, as usual, are not very exact. These roads may be seen on the one-inch Ordnance map, leading, roughly speaking, to Sandwich, Dover, and Lympne.

To begin with the last of the three: it runs from Canterbury a little to the west of south. It is very straight, and is marked on the Ordnance map as a Roman road. It points to Lympne, but does not go quite so far. The Canterbury end of it is also missing. As the Portus Lemanis has ceased to exist, the road is very little used and partly obliterated. The sea formerly ran up between

Romney marsh and the solid ground of Kent, as Camden tells us in his *Britannia* 1607, translation by Gibson 1753, column 255 :—

Hith	“At four miles distant, is Hith, one of the Cinque
or	Ports, from whence it had that name hith in Saxon
Hide.	signifying a port or station, though at present it can
	hardly answer the name, by reason of the sands heaped
	in there, which have shut out the sea at a great
	distance from it. Nor is it very long since its first
• West Hythe.	rise, dating from the decay of West-hythe; which is a
	little town hard by to the west, and was a harbour
said in 1607.	till in the memory of our grandfathers the sea retired
	from it. But both Hythe and West-hythe owe their
	original to Lime, a little village adjoining and formerly
Portus.	a very famous port before it was shut up with sands
Lemanis.	cast in by the sea.”

At the point beyond Lympne, where this road formerly reached the coast, are the remains of a Roman fortification now known as Stutfall Castle.

The second road, from Canterbury to Dover, is not very straight. There are several turns in it near Dover. There are straight pieces nearer Canterbury, but on the whole it is not so straight as a Roman road ought to be. It is not like the one from Canterbury to Lympne, or the one to be described later. The Romans may have used and improved the road made by the Britons. We know that the Britons did make roads, because Caesar tells us in his *De Bello Gallico*, Lib. 5, cap. 19—

“Omnibus viis notis semitisque essedarios ex silvis emittebat.”

“He sent his chariot soldiers out of the woods by all known ways and lanes,—or, by highways and bye-ways.”

Dover at the time of the Romans was different from the present town. The present harbour, and nearly all the ground in front of the cliff, are the result of works begun in Henry VIIIth's time. Shortly before that there was sea between the two cliffs, and Leland, writing at the same time, says that cables and anchors have been dug up in the ground between the hills. The old harbour is said to have been silted up in the time of the Saxons; but something of it remained in the time of Domesday book. In the time of the Romans the sea is supposed to have run a mile up the valley.

The third road from Canterbury, towards Sandwich, is a good road, but not straight. It may have been a British road improved by the Romans. It cannot have run to Sandwich in Roman times. Montagu Burrows, in his *Cinque Ports*, 1888, p. 30, says—

“Sandwich and Stonar were wholly English. No Roman remains have been found at either.”

It will be shown that Sandwich is not mentioned till more than 200 years after the Romans left, and that there is good reason to suppose that the land upon which it stands and the land over which the Sandwich end of the road runs were not formed when the Romans were here.

The latest mention of Rutupiæ in history is by the Venerable Bede in his *Ecclesiastical History*, written in 736; that is, 300 years after the departure of the Romans. He is partly copying from Orosius, but appears to know the town that he is writing about. In Book I, chapter I, par. 4, he says—

“Habet a meridie Galliam Belgicam, cujus proximum litus transmeantibus aperit civitas quæ dicitur Rutupi Portus, a gente Anglorum nunc corrupte Reptacaestir vocata.”

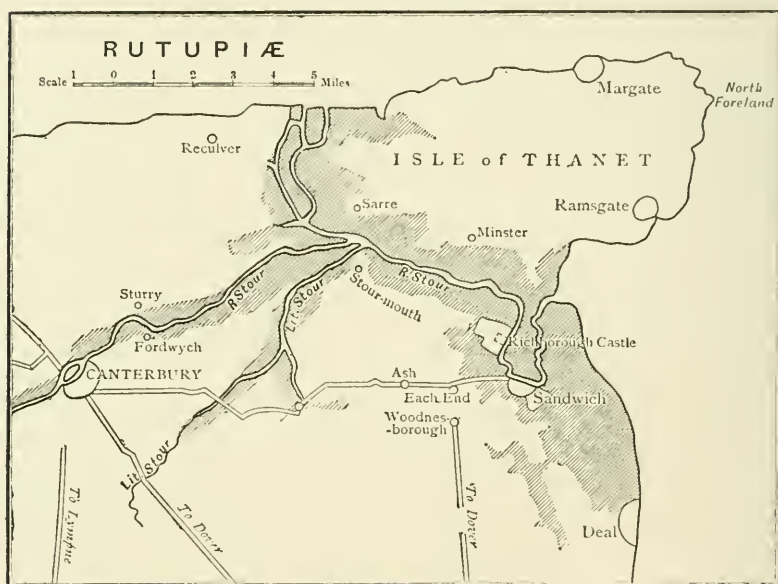
“Rutupi Portus, now corruptly called Reptacaestir by the Angles, is the nearest port to France.”

King Alfred, in his version of Orosius, written about 900, gives part of the sentence in which the above quotation occurs, but omits the part about Rutupiæ.

The *Anglo Saxon Chronicle*, after the arrival of the Saxons, does not mention Rutupiæ, but often mentions Sandwich.

Since the time of the Romans great changes have taken place on the coasts of Kent and Sussex. The western half of Romney marsh has been formed. The strait between the Isle of Thanet and Kent has been filled up. The Isle of Sheppey, which in the time of the Saxons was described as in the Thames between Essex and Kent, but nearer to Kent, is now only separated from Kent by a small stream, and is several miles from Essex. Many harbours have been filled up. No information is available about what land has been washed away. It is the forming of the land between the Isle of Thanet and Kent that most concerns us here.

The one-inch Ordnance maps of the first edition give important information, which is not to be found in those lately issued. In the earlier ones marsh formed by the deposit of mud and shingle banks are marked in a different way from solid ground. This shows what parts are now dry land, which were under water at no very distant time. In Sussex these places are called levels, as Pett Level, Pevensey Level, and the levels at Brighton. It is a very useful word, because it is often not possible, by looking at the surface, to see whether there is marsh, or shingle underneath. For my purpose it is immaterial



which it is. The map shows these levels hatched. It is taken from the Ordnance map, with some slight corrections near Sandwich from my own observations.

Solinus, who wrote about the year 238, says in his *Polyhistor*, Chapter XXV—

“Thanatos insula alluitur freto Gallico; a Britanniae continente æstuario tenui separata,”

which may be translated into English thus—

“The Isle of Thanet is situated in the Straits of Dover, and is separated from the mainland of Britain by a narrow strait.”

Bede, in his *Ecclesiastical History* written about 736, says in Book I, Chapter XXIV—

“Est autem ad orientalem Cantie plagam Tanatos insula non modica, id est magnitudinis, juxta consuetudinem aestimationis Anglorum, familiarum sexcentarum, quam a continenti terra secernit fluvius Vantsumu, qui est latitudinis circiter trium stadiorum et duobus tantum in locis est transmeabilis, utrumque enim caput protendit in mare.”

meaning—

“The Isle of Thanet is separated from Kent by the river Wantsome, which is about three furlongs wide, and can be crossed only in two places.”

By “transmeabile” he probably means fordable, as of course it could be crossed anywhere.

After this the strait was filled up by degrees, until, in the time of Henry VII, a bridge was built over it at Sarre, on the road from Canterbury to Ramsgate. Montagu Burrows, in his *Cinque Ports*, page 245, says—

“Sarre. In 1485 we find from the Rolls of Parliament that a bridge was permitted to take the place of the ferry, which was so ‘swathed, growen and hyged with wose mudde and sand that no fery or other passage may be there.’”

Possibly this bridge was not built till later, or it may have been a drawbridge, for John Twine wrote 105 years later, in 1590, in his *De Rebus Albionis*, page 25—

“Thanatos enim nostro fere ævo, ex insula facta est peninsula sive Chersonesus, superantibus adhuc octo fide dignis viris, qui non modo cymbas minutiores, verum etiam grandiores naviculas, onerariasque measse et remeasse inter insulam et nostram continentem, frequente navigatione vidisse se aiunt.”

“Thanet was almost in our time changed from an island into a peninsula, as eight reliable men now living affirm, who have seen not only small vessels, but large merchant ships pass and re-pass between the island and the mainland.”

Reasoning backward, if the bridge was authorised in 1485, and the strait was three furlongs wide in 736, we may conclude that at the time the Romans were here, from 43 to 436, the strait was considerably more than three furlongs wide. The width of the level is in one place rather less than a mile. In most places it is between one and two miles wide. Fortunately, we have evidence of the width of the strait in the time of the

Romans. Boys, in his *History of Sandwich*, 1792, page 865, writes:—

“The extensive tract of marsh land lying between Thanet and Walmer, and extending from the shore to Canterbury, was formerly the bed of the Portus Rutupinus, and in all probability was covered with the sea at the time the Romans were in this country. A strong presumptive proof of this is, that no remains whatever of that people occur anywhere throughout this flat district, whereas we meet with coins and other Roman matters the moment we ascend the rising borders of the marsh.”

E. Hasted, in his *History of Kent*, 1778–99, Vol. III, page 386, note b, writes:—

“Richborough. This tract of land is supposed to have been an island, in the antient state of the country, and it is at this time cut off from Gnston by a narrow slip of marsh, across which, even now, in wet times, the water flows, insomuch that people passing along from Ash to Richborough are obliged to pass through it.”

Except the passage quoted from Bede, no mention can be found of a harbour at Rutupia or Richborough after the time of the Romans. The statement by Gocelinus in the sixteenth or seventeenth century, that St. Augustine landed at Richborough in 597 is not considered reliable. No earlier histories mention the place where he landed.

The harbour which took the place of Rutupia was Sandwich. The first reliable mention that we have of this place is in the *Life of St. Wilfrid*, by Eddi, chapter 13, written in 711. The event recorded was in 666—

“Gloriose autem a Deo honorificati, gratias Ei agentes, vento flante ab Africo, prospere in portum Sandwicie salutis pervenerunt.”

“With the help of God, and giving thanks to Him, they arrived safely at the harbour of Sandwich with a south-west wind.”

In the *Anglo Saxon Chronicle* between the years 851 and 1066 Sandwich is often mentioned. Large fleets sometimes lay in the harbour. The only other harbour on that coast capable of containing a fleet appears to have been Pevensey. Sandwich and the four other Cinque Ports received a charter from Edward the Confessor about 1050. Other ports were added from time to time. They were bound to furnish the King with ships and men for a short time every year, and in return had certain immunities. The original number of ships that they were bound to furnish was fifty-seven. The numbers

varied from time to time, but they continued to furnish a large number down to the time of Queen Elizabeth. Hastings alone supplied twenty ships to oppose the Spanish Armada. In 1626 the Ports made their last contribution—only two ships, on the demand of Charles I. By that time the harbours had been nearly filled up by deposits from sea or river. Sir Walter Raleigh, writing to Queen Elizabeth, *A Discourse of the Sea ports, principally of the Port and Haven of Dover*, says—

“ . . . Henry the 8th in his time . . . when Sandwich, Rye, Camber and others were good havens . . . (these havens being now extreemly decayed) no safe Harbour being left in all the Coast almost between Portsmouth and Yarmouth.”

Sandwich harbour has disappeared. The town is apparently built upon the level. There are marsh and ditches inside the wall. I have not been able to find any part of the town which is decidedly above the level, though of course in a town of that age some streets are a little higher than others. The site of the wall is now shown by a raised walk. Outside the wall to the south-east is some ground a little above the level, which must formerly have been an island. The railway passes through it in a cutting. I have not found any book or map which shows upon which side of the town the harbour was. I enquired at Sandwich and was told that there was no old map there. The town is almost in the shape of a semi-circle, the straight side facing north-east, and along this side the River Stour runs. It is surrounded by a wall except on the north-east, so that the harbour was probably on that side when the wall was built, in the time of Edward IV.

The original Cinque Ports were Hastings, Romney, Hythe, Dover, Sandwich. These, with the two ancient towns Rye and Winchelsea, which were added shortly afterwards, were called the Head Ports. All their harbours are gone. Hastings had two: One is filled up and used as a cricket ground, the other cannot be found. The first Winchelsea was washed away by the sea, the second was left high and dry by the retiring of the sea. Rye is on a river some miles from the sea. Romney is half a mile from the shore. Hythe is a mile inland. Dover old harbour is filled up, and the entrance

to it is half a mile from the sea. Sandwich is on a river four miles from its mouth. It is no wonder that there is difficulty in finding the more ancient harbour of Rutupiaë.

Taking into consideration all the changes in the coast that have been mentioned, and the width of the strait given by Bede, and the building of the bridge, there is every reason to suppose that the whole, or nearly the whole, of the level between the Isle of Thanet and Kent shown in my map was not formed in the time of the Romans, and that its place was occupied by water. This would leave the military station Rutupiaë upon an island on the north side of the entrance to a harbour a mile and a-half long by a mile wide. It may seem awkward to us to have a military station upon an island. It was probably placed there for safety. On this coast there were several towns or villages upon places that were islands before the level was formed—Pevensey, Hydney, Northeye, the two Winchelseas, Rye, Appledore. Going further off we find Cadiz, Venice, Tyre.

We now see why the road could not run to the military station at Richborough Castle. It could only run to the harbour, “ad Portum Ritupis,” as said in the *Itinerary* of Antoninus. We do not know what reason there was for reaching the harbour at the particular place where it does—the little village of Each End. It may have been made by the Britons in time of peace, and the island may have had nothing to do with it. It keeps along the high ground as much as possible.

There is another reason for supposing that Each End was at the end of the road and the place where the boats left the mainland for the island. Richard of Cirencester wrote or might have written his *De Situ Britanniae* in 1400. It is the opinion of many competent persons that this is a forgery compiled by Bertram, by whom it was published in 1757. It is thought to have been partly taken from Camden and other writers later than Richard. The part about to be referred to does not appear to be taken from these writers, and it does not seem to matter much whether we connect it with the name of Bertram or Richard. Both were so far away from the time of the Romans that they had to gain their information from

writings and not from tradition. The part in question is an *Itinerary*, in the style of Antoninus, but not a copy from his. Even if the whole thing is spurious, it is useful, because it calls our attention to a fact. In *Iter. XV* a road is mentioned from Dover to Rhotupis colonia, ten Roman miles. Antoninus does not mention this road. It is marked on the Ordnance map as a Roman road, and if complete would run from Dover to Each End, not to Richborough Castle or Sandwich. I have walked over the greater part of this road. Up the steep hill from Dover I could find no straight road. From the top of the hill, a mile from Dover, it appears to have run in a straight line to Woodnesborough. The last mile, from that place to Each End, is missing. At the Dover end for nearly two miles it is straight, with only one deviation round a farm, and it is hardly wide enough for a cart, and much overgrown. Further on there are more breaks, but the road soon comes back again into the old line. It runs almost due north and south. Nearly all the other roads in this part run north-east and south-west, or north-west and south-east, in consequence of the lie of the ground. The road is not wanted for modern traffic, and appears to have no object at its north end. Richard of Cirencester says that it goes to the colony of Rhotupis, by which he may be understood to mean the mercantile settlement as distinguished from the military station upon the island. This is the only place in which I have found the word "colony" used in connection with Rutupiæ. The road is said to be ten Roman miles. From Dover to Each End is eleven Roman miles, and Richborough Castle is a mile and a-half further, and not in a straight line. Not much reliance can be placed upon this, because the distances in the *Itinerary* of Antoninus are not exact, and there is no reason to suppose that this one is more correct.

We will now go back to the question which was passed over before—why we should think that the roads from Canterbury to Dover and to Each End are the same as those used by the Romans. It was shown that the two unimportant roads, from Canterbury to the Portus Lemani and from Dover to Each End, remain in great part to the present day. It is therefore next to impossible that the two more important roads, from Canterbury to Dover

and to Each End, can have been quite obliterated. The harbours they led to were used in the time of the Romans, and with slight change of position have been used ever since, or at any rate to the time of Elizabeth. There may have been some deviations from the old roads. The road from Canterbury starts straight for Each End, and the road from Each End starts straight for Canterbury. In the middle there is a deviation to the south to avoid the two branches of the Little Stour. Originally the road may have run across the marsh and over two bridges. In the troubled times after the Romans the bridges may have been allowed to get out of repair, and the traffic may have been diverted to the higher ground where the present road runs.

In the 400 years that the Romans were here the sea probably receded considerably, but the newly-formed land would not be good enough for building on. A little to the east of Each End a tumulus or small island rises out of the level. It is eighty yards to the west of the sixty-seventh milestone and about half that distance to the south of the road. If it is a tumulus, and the date of its erection can be ascertained, it may throw some light upon the date of the formation of the level in that place.

In *Archæologia*, 1888, Vol. LI, Part II, page 449, "Archæological Survey of Kent," is the following passage:—

"The Kent Archæological Society, during the autumn of the past year, caused the land to the north and west of the castrum at Richborough to be excavated under the supervision of Mr. Dowker and a committee, but the results were disappointing, and proved that the site of the vius and cemetery must be looked for in another direction."

The Kent Archæological Society having failed in their attempt to discover the town of Rutupię just outside the walls of Richborough Castle, search should be made for it at Each End.

KENT IN RELATION TO THE ETHNOGRAPHIC SURVEY.¹

By E. W. BRABROOK, F.S.A., President of the Anthropological Institute.

The evidence of human occupation in Kent goes back literally to the remotest antiquity; and it is reasonable to infer that there was human occupation there in times which have left no evidence of it behind them. Before man began to practise even the rude art of shaping flints he probably availed himself of the advantages which the upright position he had acquired gave him, and of the weapons which nature placed within his reach, and flung stones at any animal he wished to kill. The discovery that a stone would be better for a sharp edge, and that such an edge could be given it by knocking it with sufficient force and smartness against another stone, would be made in due course after some interval of time, long or short. The human mind, excellent instrument as it is, works so slowly that it may have been a long time. At any rate, this discovery was made in Kent; and by all that we can judge from, as early in Kent as anywhere.

Sir Joseph Prestwich, whose recent death full of years and honours leaves a great void in the scientific world, explored the chalk plateau for twenty miles—from Titsey on the west side of the Darent valley to Punish on the east, and recorded fifty different localities in which flint implements have been found. Ninety-five per cent. of the specimens consisted merely of flints slightly trimmed. He accordingly suggested that they were the work of a more primitive and ruder race than that which fabricated the palæolithic implements of the valley drift. Indeed, he went further, and conjectured that as these rough implements appear to have been carried down, with the southern drift, on to the plateau from Central Wealden uplands, which in his estimate might in pre-glacial times, before the denudation of the Weald, have formed a low mountain range 2,000 to 3,000 feet in height, it is possible they may have to be relegated to a very early period

indeed. That, however, he left as a question for the future.

The documents which Sir Joseph Prestwich adduced in support of his theory were 1,277 implements collected mainly by Mr. B. Harrison on the east side of the Darent, and 236 collected mainly by Mr. De B. Crawshay on its west side. Upon these several questions arose: first, were they (as regards the majority of them, excluding those which are obviously of the ordinary palæolithic type) of human workmanship at all? Here the great authority of Sir John Evans was ranged on the negative. He attributed the apparent chipping of their edges to the agency of nature. Second, assuming them to be the work of man, is their rudeness an index of their antiquity? Upon this Professor Boyd Dawkins adduced some cogent instances to the contrary. Third, assuming them to be the work of man, and that the presumptions are in favour of their antiquity, ought we to be satisfied with the evidence, and ought we not to suspend our judgment till more conclusive discoveries have been made? General Pitt Rivers argued that we had better wait; but at the same time he observed, with great force, that "he had always thought that a time would come when implements of a ruder type than those of the river drifts would be discovered. It was hardly reasonable to suppose that implements of the high finish and form of some of the known palæolithic ones should be the earliest implements contrived by man. A single chip or a couple of chips off a rude nodule of flint would be sufficient to constitute a useful tool for some purposes, and at the time of the very first commencement of the arts, probably the ideas of man would go no further."

Since then Mr. T. Bell has enforced the same conclusion in an excellent paper read before the Anthropological Institute; and has shown that in the Oxford Museum there are implements used by savages in Tasmania and South Africa within recent times which correspond to those of this pre-palæolithic stage.

However this may be, and *non nostrum est tantas componere lites*, there is no question but that Kent is largely productive of relics of the palæolithic period. Mr. Worthington Smith found at Canterbury two flint implements

of a very old type, which are now in the possession of Sir John Evans and of the British Museum respectively. They were deeply ochreous and greatly abraded. Sir J. Evans and Sir J. Prestwich found some fine specimens at Hythe Bay and Reculver (*Arch.*, XXXIX). Among those in Mr. Harrison's possession is one found at South Ash, described by Sir Joseph Prestwich as most carefully fashioned, six inches long by three and a-half wide, of the thin flat spatula-shaped form and of a bright yellow colour. At Ightham, Erith, and Hayes, Mr. Spurrell has found numerous specimens, which have been described by him in the *Archæologia Cantiana*. Mr. Stopes has collected an enormous number from the river gravels at Swanscombe. Others from Chartham, Chilham, and Petham are among the collections of the Kent Archaeological Society.

This leads to the observation that palæolithic man has not only left relics of his workmanship, but remains of his personality. In a gravel pit at Galley-hill, near Swanscombe, considerable portions of a skeleton were discovered in the year 1888, but unfortunately were not described until the year 1895, when they were entrusted to the most competent hands of Mr. E. T. Newton, F.R.S. The evidence that these bones are the remains of palæolithic man rests partly on the appearance of the bones themselves, but mainly on the testimony of two intelligent and respectable persons by whom they were seen *in situ*. The skull is extremely long in proportion to its width; the supraciliary ridges are strongly developed; the sutures are completely obliterated both internally and externally. The forehead is only moderately receding.

In these features the skull possessed a considerable degree of resemblance to two skulls found in a cave at Spy, near Namur, in Belgium, and to the famous Neanderthal skull. It also in various particulars resembles closely a skull of great antiquity found in a river bed at Borris in Ireland. We shall probably be wise if we leave the case there. At the same time, if (which is not very likely) we should happen to meet a man of Kent, or Kentish man, with an extremely long and narrow skull, much flattened in at the sides, and with

strongly projecting eyebrows, we shall be justified in asking his leave to measure him, as a specimen presenting symptoms of a return to the very earliest type of people of whom we know anything as having inhabited Kent. The grinding teeth of the individual were well worn, and indicated a person of something like middle age, but the other bones discovered do not appear to have presented any peculiarities which help us to a conjectural restoration of him.

Mr. Worthington Smith has, however, put together all the indications we have of what palæolithic man was like in a very ingenious manner. He paints him as shorter in stature, bigger in the belly, broader in the back, and less upright than man of the present day. He has but little calf to his legs. The females are considerably shorter than the males. The old men and children are hairy, like the Ainos of the present day. The foreheads recede, the large bushy red eyebrows meet over the nose, the brows are heavy and deeply overshadow the eyes. Many of the women have whiskers, beards, and moustaches. The noses are large and flat, with big nostrils. The teeth project slightly in a muzzle-like fashion; the lower jaws are massive and powerful, and the chins slightly recede. The ears are pointed, and generally without lobes at the base. I do not follow Mr. Smith any further into his description of their manners and customs, though strongly tempted to do so.

We now approach another question that has been much discussed. How is the interval between the palæolithic and neolithic ages to be filled up? Mr. Allen Brown answers it by urging that there is no such interval; that the palæolithic and neolithic periods are continuous, and asks why it should be otherwise. He points to the fact that in the valleys at West Wickham, Mr. Clinch (who now worthily fills the office of clerk to the Society of Antiquaries) found palæolithic implements stained with ochreous deposit, and that neolithic implements have been found in the same place. Mr. Clinch has described these discoveries in the eleventh volume of the second series of the *Proceedings of the Society of Antiquaries*. Mr. Brown specialises a great number of forms of implements as being an intermediate type, to which he gives the

name of mesolithic. He thus affirms a continuity of man's existence between the two periods.

Professor Boyd Dawkins, on the other hand, has argued that the two periods are separated from each other by a revolution in climate, geography, and in animal life. He acknowledges that the evolution of the Neolithic from the Palæolithic stage of culture in some part of the world may be accepted as a high probability, although we may be unable to fix with precision the land where this transition took place; but wherever it was, he holds that it was not in this country. Palæolithic man was a rude hunter; neolithic man a herdsman and tiller of the ground, and the remains of each are associated with those of animals suited to their different characters. Between the two, in his opinion, there is a great gulf fixed. The discovery of the ruder forms of implement is not inconsistent with their belonging to the neolithic period. These doctrines are also held by Dr. Munro in his delightful work on Bosnia and the Herzegovina, just published; by Sir Henry Howorth, and by other writers of eminence.

There is no contesting this weight of authority; but we cannot help thinking that the other side of the argument possesses the height of probability. Let it be granted that in palæolithic times England was joined to the Continent, and that by the neolithic period it had become an island—that the fauna of the two periods are different in character—and that very little evidence has yet come to light of the intermediate forms—one cannot but think it more highly probable that such intermediate forms existed, and that a continuity of human existence was kept up, than that there was some huge cataclysm which swept away the palæolithic people, and left England untenanted during the long lapse of time which has to be allowed to have passed between the one period and the other.

The ethnology of Kent, therefore, during the interval between the palæolithic and the neolithic periods is a subject on which it is premature to express any opinion. We have little evidence that any people occupied it, and none as to what sort of people they were. Whether they continued gradually improving their implements and

changing their habits, working out their own progress towards better things, or whether during a long period of time the county remained unoccupied, must be held to be a question on which we await further evidence. We find it difficult to realise a state of things where human and animal life was suspended, and suspect, rather, that as the ages rolled on man and beast alike became modified to suit the changed requirements of their surroundings.

The neolithic period in Kent has not yielded human remains, but only remains of human workmanship, and the same remark may apply to the long stretch of time which we may call the Celtic period, and corresponds with the bronze age. A glance at Mr. Payne's excellent map, and still more useful archaeological survey of the county shows how considerable are the remains of human workmanship belonging to this period. The whole county except the Weald is freely marked with the symbol (E), representing earthworks and oppida, and the blue marks, representing pre-Roman antiquities, are frequent. The topographical index shows many discoveries of implements and weapons of bronze, ornaments of gold, and coins belonging to this period. In Kent, however, recorded discoveries of human remains are comparatively infrequent. The great ossuary at Hythe belongs to a much later time, and is quite inconclusive. Professor Flinders Petrie has examined about fifty of the seventy earthworks which he found referred to in various maps and works on Kent. He describes the enclosures, entrenchments, pit villages and tumuli on Hayes Common as the finest in Kent for their extent, their preservation, and the great number of pit dwellings, exceeding 150. In fact, he says, they cannot probably be matched nearer than Wiltshire or Dorsetshire.

Upon this hint we may perhaps be permitted, in the absence of direct evidence from Kent itself, to refer to the discoveries of General Pitt-Rivers on his estates in Wiltshire. He discovered, in the two villages of Woodcuts and Rotherley and in the pit near Park House, in Rushmore Park, the bones of a race whose stature did not exceed 5 feet $2\frac{3}{5}$ inches for the males and 4 feet $10\frac{9}{10}$ inches for the females.

He asked, are these the survivors of the neolithic

population which, after being driven westward by successive races of Celts and others, continued to exist in the out-of-the-way parts of this region up to Roman times? and found some justification for the hypothesis that they were in the crouched position of the interments and their markedly dolichocephalic and hyper-dolichocephalic skulls. The meaning of this is that the cephalic index varies from 689 to 799. The cephalic index of the Galley-hill skull as it now appears is, as nearly as can be measured, 640. On the other hand, he suggested that they might be simply the remnants of a larger race of Britons, deteriorated by slavery and reduced in stature by the drafting of their largest men into the Roman legions abroad, a view which might perhaps be supported by the comparatively large size of the females. The meaning of this is that, as compared with skeletons at Frilford of about the same period, measured by Professor Rolleston, while the men are six inches shorter, the women are about the same height.

If the first theory be correct we have a continuance of race from neolithic to Roman times, through successive invasions. If the second theory be correct we may, it is presumed, take these remains as probably belonging to the later Celtic or Brythonic races. Whether the earlier Celtic or Goidelic races ever occupied Kent there is little to show. Professor Rhys intimates that their position to the west and north of the others affords a sort of presumption that they were found occupying the county when the Brythons or Gauls came and drove them westward, and that they had probably occupied it for centuries, having themselves driven before them the neolithic peoples who preceded them. He refers to the visit of Pytheas to Kent about 330 B.C. on a mission from the merchants of Marseilles, when he found a thriving agricultural community, making and drinking mead and beer, and ready and willing to enter upon trading relations with the Greek merchants who commissioned him.

Sir John Evans tells us that gold coins were struck in Kent as early as the second century before Christ, and Dr. Rhys mentions the curious circumstance that they were all modelled after Greek coins of the time of Pytheas,

which was nearly two centuries earlier. Nothing could more strikingly indicate the slow and gradual and yet certain and important advance in the arts caused by commerce and by intercourse with the Continent. The people with whom Pytheas opened up relations were not savages to be propitiated by trumpery ornaments or bits of tinsel, but knew the value of money, and in due course saw the advantage to them of striking their own coins, and acquired the art of doing so. Professor Boyd Dawkins has shown cause to think that iron mining was carried on in the Weald as early as this period.

Among the collections of the Kent Archæological Society is a magnificent series of gold armillæ and torques in the highest state of preservation. Four armillæ of solid gold, weighing from 1 oz. 10 dwts. to 2 ozs. 12 dwts. were found in the Medway below Aylesford in 1861. One weighing as much as 22 ozs. 4 dwts. is now in the British Museum, and was figured in the thirtieth volume of the *Archæological Journal*. Three torques (one broken) are also in the collection of the Kent Society, and have been described by Mr. Roach Smith in Vol. IX of the *Archæologia Cantiana*. So highly does the Society prize these precious objects that it has deposited them in a cabinet at its bankers, where they can be seen by special arrangement.

The next stage in Kentish history which involves an ethnological development is the landing of Cæsar at Dover. That great soldier gives us little information about the people themselves, but the slight indications we derive from his narrative are all in their favour. He found them awaiting his arrival in force displayed to view on all the hills: "in omnibus collibus expositas hostium copias armatas conspexit." When he sought to land he found cavalry and chariots ready to endeavour to prevent him. They had an advantage over his soldiers in the free use of their limbs, unencumbered by the heavy armour the Romans wore, and in their better acquaintance with the ground.

He speaks well of their military tactics. "Being well acquainted with all the shallows, when from the shore they observed any single persons coming out of a ship, putting spurs to their horses they would set upon them

while encumbered in the water; a great number would surround a few; and others at an open flank would shower in darts upon multitudes." So that Cæsar did not at first obtain his wonted success "*hoc ad pristinam fortunam Cæsari defuit.*" Nor were the natives crushed by their first defeat; for "as they knew that cavalry and ships and corn were wanting to the Romans, and could guess at the paucity of their soldiers by the smallness of their camp, the leaders of the Britons resolved to cut off the Romans from corn and provisions and prolong the campaign till winter." The men of the Seventh Legion being sent out to forage was overcharged by the Britons and scarce able to stand their ground; the natives had awaited their arrival all night in the woods, and poured in darts upon them when they had scattered and laid aside their arms and were busy reaping the corn they had not sowed.

Cæsar also describes their tactics in fighting from their chariots in terms of admiration. "*Ita mobilitatem equitum, stabilitatem peditum, in præliis præstant.*" "By daily experience and practice they become so expert, that they are accustomed on declining and sloping ground to check their horses at full gallop and quickly manage and turn them and run along the pole and rest on the harness and from thence with great nimbleness leap back into the chariot." The Romans found that these people, rightly struggling to retain their freedom, were not despicable foes. "*In perpetuum sui liberandi facultas daretur, si Romanos castris expulissent, demonstraverunt.*" Cæsar's soldiers "having demolished and burnt everything a great way round" left for the winter.

Cæsar found four Kings in Kent; and Kent, which was the first portion of the country to adopt a gold coinage of its own, was also the first to inscribe its coins with letters as early as 30 B.C. This is a further evidence of the receptiveness of the people. Indeed, in discussing the ethnology of Kent, it is to be borne in mind that, as the nearest point to the Continent, it has been from the earliest times to our own day the part of England to which the foreigner, whether invader or visitor or merchant, naturally gravitates; and that here, therefore, the influence of the foreigner, whether in actual admix-

ture of blood or in the adoption of his ways of thinking and acting, may be expected to be considerable. The Kentish corner of the country may therefore be expected to be in advance of the rest of it in civilisation.

My late friend Mr. Henry Shaw, in a letter which he wrote to me in 1870, lamenting the tendency of the antiquaries of that day to cram us with "remote evidences of barbarism, varied only with discussions tending to prove by evidences on the earth and under the earth that all our civilisation is of Roman origin," said: "I have no doubt that our physical beauty has been much improved by the savage soldiers, who so long ruled over us, having condescended to cross the natives, which is shown by the number of Roman noses we meet with. Where the pugs come from I can form no opinion." That very accomplished artist and authority on the dresses and decorations of the Middle Ages did not affect to be learned in races, but his humorous remark may serve to show the usefulness of obtaining exact observations on physical peculiarities.

The Roman occupation of 500 years undoubtedly effected great changes in the aspect of the country and the manners and customs of the people. Some interesting Roman interments were discovered in this city south of the Stour by Mr. Pilbrow, and are described in Vol. XLIII of *Archæologia*. In the German invasions which took place after the Romans withdrew, Kent fell, about the year 449, to the Jutes. Mr. Coote maintains that at and after the departure of the Imperial authorities the language spoken in all the cities of Britain, and by the upper and middle classes, was Latin. He founds upon this observation, and upon the testimony of Paulus Diaconus, the theory that Vortegern or Wyrtegeorn, and not Hengest, was the real leader of the Jutes and invader of Kent. He doubts whether there was a King of the Britons at this time, and does not suggest by whom the invitation, stated by Bede and the *Anglo Saxon Chronicle* to have been given by Vortegern to Hengest, was in fact given to Vortegern.

Mr. Park Harrison, in 1882, was struck, when visiting Kent, with certain peculiarities in the physiognomy of a portion of the population round Canterbury, which he

suspected might be due to Jutish blood. He collected some photographs, and fortified his opinion by that of Dr. Beddoe. He describes the peculiarity of the Jutish features as in the form of the nose and mouth. There is no nasal point or tip or bulb, but the end of the nose is rounded off somewhat sharply, and the septum descends considerably below the line of the nostrils. The lips are less moulded or formed than in the Saxon type, the lower lip being thick and deep. He thought the Jutish profile resembled that commonly sculptured in Assyrian marbles. That they were different in race-origin from the Saxons would seem to be confirmed by the circumstance that the objects found in Kentish graves differ from those in Saxon cemeteries.

Sir Henry Howorth argues that the Jutes and Frisians were the same people, and that we may therefore expect to find some resemblance between the people of Kent where the Jutes settled and those of Dumfriesshire where there was a Frisian invasion. Dr. Walter Gregor has recently been conducting an ethnographic survey in Dumfriesshire, and it will be interesting to see whether this view is confirmed. In all these matters there is much obscurity, as the terms Jute, Angle, and Saxon are used without discrimination, and the chronology of the period is confused. Sir Henry thinks that previous to the fifth century there had been a gradual colonisation, and that the Roman-British and Saxon peoples had been gradually intermixing for a hundred years before, an opinion which was held by the late Thomas Wright.

Mr. Coote, in his valuable work *The Romans of Britain*, shows that the number of the Jutish invaders or colonisers could never have been large. The geography of Jutland demonstrates that its resources in respect of population must have been small. This conclusion is strengthened by the fact that they did not impose their own name upon their new country, but, on the contrary, appropriated to themselves the old native name, calling themselves Cantware and Centingas. Little more than a generation after they had made good the foundation of their new kingdom of Kent, they were too weak to retain London and Middlesex, and lost that jewel of their crown to the Saxons, who founded the kingdom of Essex. This

renders entirely untenable the theory of an extermination of the original inhabitants.

I am aware that these views are not popular, and are not even considered orthodox, but I do not think much the worse of them for that. The accepted view that the Jutes effected a complete expulsion of the Britons from Kent is not supported either by probability or by evidence. The impenetrable Weald must have sheltered many of the inhabitants, and the "merciless swords" of the savages, whom Mr. Green takes a pride in calling our fathers, however thoroughly they did their work, cannot have "swept utterly away" a resourceful and civilised population. All that Bede says is that "some, spent with hunger, came forth and submitted themselves to the enemy for food, being destined to undergo perpetual servitude, if they were not killed. Others led a miserable life among the woods, rocks, and mountains, with scarcely enough food to support life." A large discount is always to be taken from stories of bloodshed and extermination.

I need not refer to the landing at Ebbsfleet or the battles of Crayford and Aylesford. The Jutes never had a peaceable time here. Besides constant wars with their kindred races who had settled in other parts of Britain, they were harried by Danes and by pirates from Ireland. This corner of the country was too wealthy and too easily accessible to be left alone. They were in a very vulnerable condition. The settled part of the county passed through many political changes: at one time sub-divided among a number of petty chiefs; at another absorbed in a kingdom extending over many adjacent counties; at another extending itself along the Weald over the territories of the other tribes.

Nor need I refer to what was perhaps the principal event of this period, and is especially connected with the history of this city—the mission of Augustine. However important it was in many respects, it had no ethnological significance. The companions of Augustine were not in a condition to introduce any new racial element. No one will deny that the mission had far-reaching social and religious consequences, but for the present purpose it cannot be taken as qualifying in any way the evolution of the English race.

We can therefore pass on to the arrival of William the Norman. It is true that he did not, like Cæsar and the Jutes, land in Kent; but the Kentish men were in the front of the battle at Senlac. After that decisive battle, the punitive expedition to Romney and the capture of Dover Castle quickly followed; and Odo, Bishop of Bayeux, was made Governor of Kent. Domesday Book shows the distribution of the lands of Kent among the Normans. It has never been suggested, however, that the settlement of the Normans in their castles and territories drove out or exterminated the English, as it is alleged the Jutes drove out and exterminated the Britons. On the contrary, many English landowners remained tenants under the Norman lords. The distinction between the two races was maintained up to 1340 by the old law of presentment of Englescherie.

Since the Norman Conquest we have had many invasions of Kent, but of a friendly character. We are, indeed, subject to daily invasion as the Dover boats land their cargo of passengers. Perhaps the most interesting foreign settlement is that of the Huguenots after the revocation of the Edict of Nantes, of which there is so interesting a memorial in the continuance to this day of their Protestant worship in their own chapel in the crypt of Canterbury Cathedral. The Huguenot Society does excellent work in cherishing the memory of these good men and women, and placing on record the great debt we owe them. One item in that indebtedness lies in the fact that they were the originators of the modern form of Friendly Society.

The question will probably be asked—having regard to all this mixture of races that has been going on so long—what is the use of an ethnographic survey of Kent? In order to answer it, it is perhaps desirable that I should set forth briefly what the Ethnographic Survey is, and how it proceeds. It arose out of a suggestion by Professor Haddon, addressed to various bodies that deal with Anthropology, Archæology, and Folk Lore, that for the purpose of ascertaining what man is in any district, the whole man has to be studied. You must not merely measure his skull and record his physical characters, but you must look up the history of his descent, find out from the remains of their workmanship what sort of people his forbears were, and

ascertain what superstitions and beliefs they have transmitted to him.

It is accordingly proposed to record for certain typical villages, parishes, and places and their vicinity (1) physical types of the inhabitants; (2) current traditions and beliefs; (3) peculiarities of dialect; (4) monuments and other remains of ancient culture, and (5) historical evidence as to continuity of race. The first step which the Survey Committee took was to form a list of such places in the United Kingdom as appear especially to deserve ethnographic study. A list of 367 such places was made, but no one suggested any place in the County of Kent. This neglect is probably due to the sense that the population of Kent has become so mixed by the changes to which I have referred that no village or place in it could be said to be typical.

The kind of village or place which the Committee considered would be suitable for survey is such as contains not less than 100 adults, the large majority of whose forefathers have lived there so far back as can be traced, and of whom the proposed physical measurements, with photographs, might be obtained. It is no doubt desirable to exclude places where there has been a modern intermixture of race, and it is therefore suggested that at least three generations should be clearly traced; but it would be neither possible nor desirable to exclude mixtures of race taking place in ancient times. I cannot but think there must be many places in Kent which would answer such a test as this, and would be eminently suitable for survey.

No doubt the populous places in North and West Kent would not be very serviceable for the purpose, but there are many villages in Mid Kent and East Kent where, up to these railway days, the people have lived quietly by themselves, and pursued generation after generation their labours of husbandry or other occupations without much immigration or emigration. If it be true, as I cannot but suspect, that from the earliest times to the present there has been a continuity of population, subject to frequent modification from the causes to which I have referred, but never entirely dying out, the resulting race, though it be a mixed race, will still be the expression of the soil,

and it will be well worth while to observe and record its characteristics.

One part of the Survey, that relating to monuments and remains of ancient culture, is happily complete. The valuable Archæological Survey of the County of Kent by Mr. George Payne, who is one of the representatives of the Society of Antiquaries on the Ethnographical Survey Committee, leaves nothing to be desired in that regard. The map shows at a glance what discoveries have already been made, and distinguishes by colour the period to which they belong, and by form the nature of the thing found. At a glance one can see that the whole county is dotted with earthworks, that megalithic remains are in the neighbourhood of Addington and along from Aylesford towards Chatham, that pre-Roman antiquities have been met with in many of the ancient villages, that Roman remains cluster along the lines of the great roads and the principal cities and stations, and that the Anglo-Saxon element is especially strong in the eastern portion of the county.

With such guidance, it will be easy to select the villages where it would be worth while to take physical measurements and endeavour to collect folk-lore. Investigations into dialect would probably not be very successful; but the simple directions drawn up by Professor Skeat at the request of the Committee for the guidance of the enquirer may well be borne in mind; and the evidence recently published by Professor Skeat, that the Kentish dialect retained in 1611 certain peculiarities which it possessed in 1340, and has not now, shows that information of a negative character may at least be obtained. Some suggestions as to the points to which attention might usefully be given in respect of local history are also contained in the brief code of questions which the Committee has drawn up, and which embodies in a pamphlet of twelve pages a most comprehensive and exhaustive enquiry.

The portion of the enquiry which relates to folk-lore has in other counties been to a large extent anticipated by the action of the Folk Lore Society, but not so in Kent. I think it probable that there is much Kentish folk-lore scattered about in local histories and other printed works;

but no one has yet, so far as I am aware, been at the pains to gather it together. Old Aubrey, or rather the Rev. White Kennett, his annotator, tells us that "the way of chusing Valentines by making little furrows in the ashes and imposing such and such names on each line or furrow is practist in Kent"; that women when they have kneaded their dough into a loaf cut the form of a cross upon it; that a whipping Tom was talked of to frighten maids from wandering; that "putting of iron upon barrles of drink to keep it from sowing when it thunders is a common practise"; and so forth.

In the various papers read before and published by the Folk Lore Society, I can find little relating to this county. The Rev. Mr. Birks reported to Mr. J. G. Frazer the existence of a custom in Orwell to throw water on the last waggon returning from the harvest field, and for the men in the waggon to throw water on those they met. Some weather-lore from Kent is also noted, as that the flowering of the blackthorn in April is followed by cold weather; but the other references to Kent are few; nor are many more to be found among the miscellaneous contents of the *Gentleman's Magazine*.

A writer in the *Spectator* of 8th June, 1889, recorded the extraordinary belief of an old man in East Kent that if you take a hair in summer from the tail of a horse and place it in a running stream, it will before long become a watersnake or an eel. By what occult process of nature this wonderful transformation was to be effected he did not explain. It is not easy to think that such a belief can ever have been very widely spread, even among the most ignorant. The old man condescended to particulars, and said the root of the hair would become the head of the fish.

It would seem, therefore, that in respect of folk-lore the ethnographic enquirer has almost virgin ground to work, and one cannot but think that research in this direction would be rewarded with valuable results. Mr. Clinch, in his work on Bromley, states that the custom of ringing the Pancake Bell on Shrove Tuesday was still, in 1889, when he wrote, observed at Bromley Church, and that tradition affirms that the ringer of the bell was supposed to be entitled to receive one pancake from each house in

the town. The tradition does not state whether he was required to consume them all, and with what consequences.

There must be existing in Kent memories of quaint customs which would be worthy of enquiry and record. We know, of course, with regard to tenure of land, that Kent has at this day its special tenure of gravelkind, which commends itself so much to our notions of justice, that all the sons alike shall succeed to the inheritance, and not the eldest son alone. This is a custom of which the law takes particular notice. Details of the customs relating to this tenure may be found in the *Consuetudines Kantiæ*, and in Elton's *Tenures of Kent*. Kent is also distinguished from other counties by its division into lathes.

The collection of physical observations and of photographs is another important part of the Survey. For this careful instructions have been drawn up by Dr. Garson and Professor Haddon. Dr. Garson is the medical man who has been appointed by Government to instruct the officers of the Prisons Department in the system of anthropometric measurement known as Bertillonage, and in that of identification by finger prints advocated by Dr. Francis Galton. The instructions, therefore, for which he has made himself responsible, may be taken as authoritative.

All the necessary measurements can be obtained with a small equipment of instruments, consisting of a two-metre tape, a pair of folding callipers, a folding square, all graduated in millimetres, and a small set square. Such a set is on the table, and the Committee is prepared to lend such a set to any observer who may not happen to have a set of his own. The use of these instruments is clearly explained in the instructions, and a person of intelligence without medical education may soon become expert with them.

Some personal information is asked for in order to ascertain the suitability of the individual for record and to classify him according to the various points of view in which the observation may be made useful; but these will in no way be published, and care will be taken to obviate the possibility of any annoyance being given to those measured. Other general observations have also to be

made which cannot be reduced to figures, as of the colour of skin, hair, and eyes, the shape of the face, profile of nose, &c.

In all these, the framers of the Schedule have endeavoured to give such broadly marked, general definitions as will keep the personal equation out of view. Whether a man is stout, medium, or thin there can be little doubt; so if his skin be pale, ruddy, or dark; and in like manner for the other observations. No one could feel much difficulty in assigning the right place to any subject where the definitions are so general, and no two observers would be likely to differ.

The hair is distinguished into five classes for colour—red, fair, brown, dark, and black, and three for shape—straight, wavy, and curly. The colour of the beard is classified in the same way. The eyes are distinguished into six classes of colour—blue, light grey, dark grey, green, light brown, and dark brown. For the shape of the face only three classes are suggested—the long and narrow, the medium, and the short and broad. These are sub-divided into two varieties, according as the cheek bones are prominent or inconspicuous.

For guidance in observing the profile of the nose sketches are given of the various forms defined by Dr. Topinard, the eminent French anthropologist, which represent respectively a straight, an aquiline, a concave, a high-bridged or *busqué*, and a clubbed or sinuous form of nose. There are other types also defined by that authority; but as they are mostly found in races far different from any that are met with in this country, as the Chinese, the Negroid, and the Papuan, it has not been thought necessary to include them in the code of instructions, the five enumerated being sufficient in practice.

Lips are defined as thin, medium, or thick; ears as flat or outstanding, with sub-divisions according as they are coarse or finely moulded, and according as the lobes are absent or present and attached or detached. Most of these estimates might no doubt, by an elaborate system of minute measurement and calculation of indices, have been reduced to figures; but the advantages gained by such minute accuracy would have been lost by the greater trouble and difficulty in obtaining observations, both in

respect of finding persons competent to make them, and persons willing to submit to the trouble of having them made.

The measurements for which actual figures according to the metric system are asked are those of the height of the individual standing and sitting, the length and breadth of the cranium, the length and breadth in several dimensions of the face, the length and breadth of the nose, the height of the head, and the height of the cranium. For detailed directions as to how these are to be taken I must refer to the pamphlet of instructions issued by the Committee.

It is also desirable that photographic portraits should be taken of the persons measured, and that these should be obtained on a uniform method. For this purpose Dr. Francis Galton has prepared careful directions, which, if followed, will enable his method of composite photography to be applied to them, and by this means an average type of features may be deduced. As that method, however, tends to soften down peculiarities it does not supersede the ordinary method of single photography.

Dr. Galton recommends that the photographs should be two of each person—the exact profile and the strictly full face. These are difficult to get when not taken for the special purpose, inasmuch as the photographer usually likes to pose his sitters a little obliquely so as not to get the full face nor the profile. The decision that these are the best for scientific purposes was arrived at several years ago by a Committee which worked for some time at obtaining photographs of the different races of the United Kingdom.

The collections of that Committee are now deposited with the Anthropological Institute; but although numerous, they are not so instructive as photographs collected in connection with measurements and with the other observations forming part of the Ethnographic Survey may be expected to be. Mr. Park Harrison founded upon them some ingenious inferences, but the work of the Committee was never brought to a final conclusion.

Dr. Galton adds the excellent practical suggestion that it would be a considerable aid in making measurements of the features of the portrait and preventing the possi-

bility of mistaking the district of which the sitter is a representative, if a board be fixed above his head in the plane of his profile on which a scale of inches is very legibly marked and the name of the district inscribed. This board should be so placed as just to fall within the photographic plate. The background should be of a medium tint, such as a sheet of light brown paper.

The only remaining branch of the Survey is the historical evidence. Where a place has been selected for survey, and the physical and other observations have been made, it is essential to ascertain what the place is and has been. Accordingly we ask for information as to any historical events connected with it bearing on its early settlement or subsequent incursions; the nature of the pursuits and occupations of the inhabitants; their customs and old tenures; their constitutional aversion or propensity to change, and so forth. We also ask for the dates of the churches and monastic or other ancient buildings or remains of former buildings; the evidence derived from family names through manor rolls, parish registers, guild and corporation records, and the like. By all these means we hope to obtain a complete view of the racial characters of the people in various parts of the country, and some indication of the causes of these characters. It may be that while fresh influences have been brought into play by the succession of historical events, the persistence of original types can still be traced.

“ . . . Possint generatim sæcla referre
Naturam, mores, victum, motusque parentum.”

THE EARLY MINUTE BOOKS OF THE DEAN AND
CHAPTER OF CANTERBURY.¹

By FRANCIS W. CROSS.

Nicholas Battely, the editor of Somner's *Antiquities of Canterbury*, in a letter to Strype, dated March, 1690, describes a visit to the Chapter Library at Canterbury. He says :—

“ . . . in the place where ye Records of about ye time of K. Edward & Qu. Elizabeth lay were found heaps of burnt papers ; for some years ago a fire happened to ye place where ye records lay, whereby many of them were consumed and ye rest very much defaced. A damage irrecoverable ! ”²

Out of those heaps of burnt papers the earliest remaining records of the Chapter were saved. Four volumes (two of which are so much burnt as to be in a fragmentary condition) contain the “Acta Capituli” from 1561 to 1628 inclusive ; and I propose to indicate the nature of the matter which here awaits the research of the historian or the antiquary.

By far the larger portion of the record relates to the renewal of leases to the Chapter's numerous tenants. These entries contain many curious particulars ; but I need only mention the obligation laid on certain of the lessees to regularly furnish supplies of corn and meat for the daily wants of Mr. Dean and his brethren. Thus the tenant of Orgaresweeke Marsh in 1563 was

“ bounde to delyuer to the [prebend]aryes resident weekly thorow owte [the year]³ except the tyme of lente ccl^{li} [of] byeffe after the rate of ob q^d a ponde and . . . Carkases and a halfe of mutton . . . at v^s the Carkas.”

The tenant of Sheldwich in 1567 covenanted to deliver, within the precinct of the church yearly, thirty quarters of good wheat. As he received the profits of the vicar-

¹ Read at the Canterbury Meeting, July 23rd, 1896.

² Cambridge University Library MSS., *Baumgartner Papers*: Strype Correspondence, Vol. III.

³ Words within parentheses are conjectural completions of the burnt text ; portions not thus filled in are indicated by . . .

age by sequestration, he was also required to keep the chancel in good repair, and

“to provide an apte and convenient curat.”

It was sometimes arranged that renewal fines should be paid partly in kind: we read of a tenant having to send in

“a fatt bullock to m^r Deane ”;

another,

“a good fatt buck of this Season ”;

a third,

“halfe a Tunne of wyne to be deliuered into m^r Deanes howse before halomas next,”

and so on.

The income from certain manors was ear-marked for the purpose of hospitality; some rents being appropriated to the Dean, and others to the resident prebendaries—an arrangement which lasted until the year 1615. There would ordinarily be frequent arrivals of distinguished guests within the Close; but occasionally a royal or archiepiscopal reception involved a heavy addition to the usual outlay. When Queen Elizabeth visited Canterbury, in 1573, the Chapter resolved

“that at her ma^{ties} repaire hither to this church she shall be p^sentyd wth a purse and thyrtye poundes in golde,”

and it was further agreed

“that her ma^{ties} honorable counsaile shall be byd some one Daye to a Dyn^r. ”

In 1583 it is recorded that

“m^r Deane and dyuers of the company at her ma^[ties] last being here were at greate charges wth thenterteyn[ing] of dyners of her hignes pryvey counsaile and othe[rs] attending vpon her royall persone to the some of thre hundreth poundes or thereaboutes.”

In June, 1585, it was agreed

“that the great chamber in m^r Deanes house shalbe waynscotted at the churches charge because it is thonly place wthin this church fitt for thentertaynement of any noble psonage that shall resort hether for any purpose.”

At the same time, in order to make a better show on such occasions, it was agreed

“that there shalbe one hundreth marks bestowed at [the] Discreesson of my Lo. of Dover o^r Dean & the Rec^r & tresorer in sylu[er] p[late]

for thuse of the churche & that the said playet so bought shall Re[main] in the custody of my Lo. of Dover o^r Dean for his necessarie vses [as] ofte as need shall require."

A year later it was decreed

"that my Lo. of Dov^r o^r Dean in considerat[i]on that his house roome the Dean Lodginge wherein he nowe Dwelleth is very narrow & strait for hym especially when he enterteyneth any noble m^a or other of hygher place pass[ing] this wayes in publique affayres. wherevnto he is nowe often Dryven: shall haue all that house & lodging w^h m^r Gilberte hyde late o^r Audit^r hade."

Archiepiscopal installations were occasions of lavish hospitality; and we find the Dean and Chapter welcoming a new Primate with a substantial gift. When, in 1575, Grindal was translated from York to Canterbury, it was decreed

"that the lorde Archebusshopp hys grace shall agaynst thys next Ester be presentyd by the Thresorer of thys churche with twentye fatte wethers in token of the chapters good will at hys nowe entry into tharchepiscecopall See of Canteburye."

Again, in September, 1583, it was agreed, on the coming of his successor,

"that the new electyd Archebusshop shall be presentyd wyth ij ffatt oxen at his entrye into tharchiēpall See."

While handsomely maintaining hospitality, the Dean and Chapter did not overlook the duty of benevolence, both to the poor at their gate and to the distressed stranger. Every Sunday throughout the year distribution of the "Queen's alms" was made to thirty persons whom the Mayor of the city declared to be fit and proper recipients of the bounty. To supplement this, the Dean and Chapter agreed, in 1575, to tax themselves individually for the better relief of the poor, and directed their treasurer to deduct yearly forty shillings out of the stipend of the Dean and a sum¹ from the stipend of each prebendary, the whole to be handed over to the Mayor. The benevolence of the Chapter was not confined to Canterbury. In January, 1582, they agreed

"that John hooker master of [Arts] and Reder of the Ebrew lector in Corpus christi college in Oxford shall at the request [and] sute made to vs by the right honorable therle [of] Leicester and m^r Secretary Walsyngham hau[e] from vs fyve poundes six shillings and eight pence by yere towarde the furtherance of h[is] studye. . . ."

¹ The amount is not legible.

In June, 1569, they gave £6 13s. 4*d*.

“to the poor of the afflicted frenche churchē in London.”

In 1570 the assistance granted “to Ciprian valore a stranger” was continued for another year. In 1585 a sum of £4 was bestowed upon three French preachers, exiled for religion, “their necessity being great.”

The Chapter of Canterbury has included within its own body some of the most distinguished foreign scholars who sought refuge in this country from religious persecution in their own. In the early Minute Books we find mention of Peter Alexander, whom Cranmer employed in his intercourse with foreign Reformers. In 1561 it is stated that

“where there ys the some of xiiij^{li} remayn[ing] in the ha[nds] of the most Reuerend fater in god the Lorde Archebussshop of Canterburye of such money as ys due to this churchē for fynes takyn of diu[er]s late consecrated Bysshoppes owte of this churchē That m^r. Peter Alexander shall take and Receyve the sayd so^me of oure gyfte and in lew and place aswell of all suche Dueties as he sayth were due and vnpaid vnto hym at his late deptyure oute of Englonde after the death of the late Kinge Edward. As also of all suche diuident as he claymeth to be due vnto hym by vertue of his let^r of non resydens at any tyme at or before micha^s last past.”

The burnt pages of these early Chapter records bear the signatures of Hadrian de Saravia, Hooker's familiar friend, and of Pierre du Moulin (Petrus Molinæus); while later (January 25, 161⁹₁) the reception of the learned lay prebendary, Isaac Casaubon, is thus recorded :—

“At this Chapter by vertue of the Kings mat^{ies} graunt vnder the broad Seale of England m^r Isaac Casaubon was admitted and in his owne pson sworne in the place of a Prebend of this Church and after enstalled in the Quier in the person of m^r Dr Charier.”

It has been stated by some writers that the Walloon refugees began to occupy the Crypt of the Cathedral as their *Temple* as early as 1561. Others say that the Crypt was first assigned to the strangers by Queen Elizabeth in 1568. These dates are too early; for the main body of the Walloon settlers only arrived in Canterbury at Midsummer, 1575.¹ It is precisely at this date that they are mentioned in the Chapter Minutes, as follows :—

“Yt ys agreed the wallons Strangers shall be licensed asmuch as in vs the deane & chapter lyeth to haue thuse of their comen prayer

¹ See *Acts of the Privy Council, 1574-1575*.

& sermons in the paryshe Church of St Elphies in Cant^ybury in such sorte & at such tyme as the parysheners there be not hyndred or disturbed of theyre comen prayer."

From this record we learn, for the first time, that the Walloons worshipped in St. Elphage Church before they obtained possession of the Crypt; a fact which explains why in 1575-6 the baptisms of the foreign congregation were entered in the parish register.

Like their predecessors, the Priors of Christ Church, the Dean and Chapter bore their part in the national defence. When, in 1569, the Earl of Northumberland's rising agitated the kingdom, they gave order

"that there shalbe providit tenne Corselettes furnyshed and tenne Calyuers also furnyshed to remayne in some conuenyent place in this church in the custody of the Tresorer to doe such seruice as shall apperteyn."

A little later, mention is made of

"the greate charge that the church hath bene at for setting furthe of Six light horsemen for the servyce of the prince agaynst the Rebells of this tyme."

The rebellion was soon quelled, and in the following year the Chapter's militia were back in Canterbury; for an order was then given to sell their geldings,

"to avoyde such charge as the church ys at by the keypyng of theym."

Notwithstanding their large estates the Dean and Chapter seem to have been often in want of funds. In May, 1567, it is recorded that

"by reason of lack of payment of and [not coming] in of the revenues of the said church at [seasons] and tymes vsuall The officers there are [at such ty]mes destitute of money to Supplye thordinary [and q]uartely payments to the poore and inferio^r mynisters. . . ."

It was remembered, however, that there remained

"in the vestrye [or] Tresory howse of this church dynerse . . . ¹ ments . plate and other Jewells now not [law]full to be vsed in or abowe the Service,"

and it was ordered, for the church's better provision, that

"[the said] plate shall be by weight delyueryd to m^r [Tresorer th]at now is to be conueyed to london and [who] shall make sale thereof to the best [profit] of the church. And that the money thereof [receiued] shall be lade into that cheste where oure [S]eale lyeth redye to supplye as nede shall [be] thordinary and quarterly payments alone [and] whych shall be allways redylyueryd to be [laid in] the

¹ The word may be "vestments" or "ornaments."

foresaid chest as money shall come [in to the Tresor]er or officers of the said churche."

Again, in 1570,

"vestments and other Vestry Stuffe"

were sold in order to purchase armour. In the same year it was agreed

"that m^r Receyvo^r and m^r Tresorer shall make sale of the lente clothes remaynyng in the vestrye to m^r pyereson at such pryses as they shall thynke theym resonably worthe."

In May, 1566, we find the Chapter agreeing to sell some property, in the City of London, which is connected with a famous historical site: it was no less than that of Gresham's Royal Exchange. The record is as follows:—

"[Where] there hath ben dyuerse motions made by and from the Lorde mayo^r of the Cytye of London and others the Cytyzeus and Comyners of the same Cyttie to vs the Deane and the Chapiter of this churche to have by bargayne sale and ffeoffament all those oure messuages Landes Tent^s & Gardyns and other hereditaments seituate and beinge in the parishes of Saynt Bartylemew the littell and of Sainte michael in Cornhille wth in the same Cyttie to thende to plante and erect a Burse vpon oure grounde and soile there. Yt hath ben therfore after sundrye consultacons hertofore had amongest vs the saide Deane and Chapiter in that behalfe thoughte goode to Appoynte m^r Buttler and m^r Nevyuson prebendaries of this churche and m^r Wyllm Lovelace solicitor generalle and of the churche counsaile in all matters and causes by and wth the aduise of m^r Deane of the saide churche to entre in [comm]unicacon wth the saide mayo^r Cittizens and coialtie and after the quenes maiesties licens to be obteyned vnto vs to depte withe the saide Landes and Teut^s and vpon good consideracon of sufficient recompence [to] be made to vs the saide Deane and Chapiter for the [same] to conclude and goe thorowe in that behalfe. [Wheren]pon they the saide m^r Butler m^r nevyuson and [m^r] Lovelace by and wth thaduisse of the saide m^r D[eane] concluded that we the saide Deane and ch[apter] shall depte withe bargayne and selle the saide mess[uages lands] tenements & hereditaments to the s[aid Lord Mayor citiz]ens & Cominaltye."

So far the record is written upon a folio which had been folded in previous to the fire, and is only slightly damaged. The continuation, upon the next folio, is much burnt; but sufficient remains to show that an indenture had been made between the two parties, whereby the Chapter agreed to dispose of their lands, tenements, and gardens on the said spot to the Lord Mayor and Commonalty; who, on their part, agreed to assure to the Dean and Chapter, as the price of the property, an annuity of thirty pounds. A record, dated February,

1572, informs us of steps then taken to capitalise the annuity :—

“Yt is agreid that wheareas there is a conuenient purchase of xxx^{li} by yere offery[d] that waruyng shall be gyven vnto the lor[d] mayo^r and others at London for the paymen[t] of Six hundreth pounds.”

It was not until 1574 that the sum of £600 was paid down in London, “at St. Lukes tyme,” to representatives of the Dean and Chapter. The price of the site of Gresham’s Bourse was laid out in the purchase of about eighty acres of land at Great Chart.

The Deanery at Canterbury was rebuilt in the time of Dean Godwyn. The original building, formerly the Prior’s lodging, had been destroyed by fire. In February, 1569, the Chapter agreed

“that yf there lacke eny stones for the reedyfying of the burnt lodgyng”

they might be taken from any place within the precinct of the church : doubtless the monastic buildings afforded a convenient quarry. In November, 1569, it was agreed that Dean Godwyn, should take a fine of £200, arising from renewal of a lease,

“to thende that the said m^r Deane shall satysfie and content fford and Holte for theyre barganes toching the buildyng of his new lodgyng.”

He was also to pay £27 4s. 10d. arrears due, for the year ending at Michaelmas, and in future

“to beare the charge of all workmanship glasse and other thyngs nedefull for the fynyshyng of that buyldyng.”

In December, 1570, it was agreed

“that m^r Deane shall haue somuch of the yron in the wyndowe in the lytle chappell aboue in thuppermost of the churche aboue namyd as he shall haue nede of to be spent in the new lodgyng.”

The Dean of Canterbury had, at this time, a London house. It is first mentioned in 1561, as

“the messuage called the flower de luce [in South]warke.”

In 1562 there is an order of the Chapter

“that the Receyvo^r for the tyme [being have] oure mansyon howse at the [flower de luc]e in Southwarke well repayed.”

Again, in 1568, we read :—

“Ytys agreed that the mansion house and Lodgyng at the floure de lyce in Southwarke shall be conveniently repayed in such man^r as the same may be apte to Receyve M^r Deane as necessitie shall requyre.”

The Dean had another mansion house at Chartham, near Canterbury. Dean Godwyn had found this house in great decay, and was allowed, in 1570, the sum of £6 13s. 4d. toward its reparation. It was then agreed that the chapel should be pulled down if it could not be repaired.

In 1589 the Chartham mansion was leased to William Boys, with a proviso that

“yf anye Successor of my L^o of Dovor that shall hereafter be Deane of this churche shalbe disposed to inhabite and dwell in the sayde mansion house and shall thereof giue one whole yeares warninge,”

the lease should become void; but the Dean was bound in that case to repay to Mr. Boys a sum not exceeding a hundred marks

“laide out in the finishinge of the buyldinge lately begon there.”

A record, dated December 1st, 1585, shows that Dean Godwyn, who had been lately consecrated Bishop of Bath and Wells, had not, in the opinion of the Chapter, taken due care for the Deanery buildings. It is as follows:—

“It is decreed that a lett^r shalbe written to my L[ord] Busshope of Bathe to signifying the ruen of & decay of the Deans houses aswell at Cantorbury as at Chartham Lefte by hym at his departure from this deanery & to vnd[er]stand what allowance he will make for the same & for other things delyvered to his custody & now not found to be lefte by him: and yf he do not answer to o^r good satisfaction to enter an action agaynst hym for dilapidations & for other things that are to be answered by hym as we shalbe advised by o^r counceill.”

Among the distinguished persons who are mentioned in the record is Lord Cobham, Lord Warden of the Cinque Ports. In November, 1564, the Chapter, on learning that his lordship, “a man of much hono^r,” was intending to become their neighbour, granted twenty oaks from the woods of Godmersham toward the repair of his house at St. Augustine’s (Canterbury). In 1575 it was agreed

“that the right honorable the Lorde Cobham shall haue free lybertye to enter into our mano^r of meopeham and there to take his pleasure of hawkyng and hunting, and to take order for the preservacon of oure game and free warren there and in oure names to restrayne and inhibit all other persons to vse or folowe oure sayde game there.”

Another notable person frequently named in the Chapter books was Roger Manwood, Recorder and M.P. for Sandwich, subsequently Justice of the Common Pleas

and Chief Baron of the Exchequer. In 1563 it was agreed to grant a lease

"of the howse in Sandewhiche called [S^t Tho]mas howse to hym and to his heyres in . . . payeng xx^d by yere to thentente to [erect a] Gramar scoole therevppon according to the [Queen's] mat^{ties} licens in that behalfe made."

In September, 1565, Mr. Manwood was

"reteyned to be of the Churches counsaile,"

the reason for the appointment being

"because m^r Lovelace oure Solicito^r and Counsaillor [is so] much Trobled wyth other causes that owre [caus]es are not folowed as they ought to be."

In 1565 it was agreed :—

"m^r Seriaunt manwoode shall haue twenty ooks towards the buyldyng of vj almes howses at hakyngton to be takyn owte of oure woodes at Thornden by thassignment of m^r Hill now Receyvo^r vppon resonable pryse to be set by the said Receyvo^r."

It was at the same time agreed to contribute £5 toward the repair of the highway between Thornden and Canterbury, Serjeant Manwood undertaking

"to bestowe as much more of his owne purse."

In 1576 the following record refers to an extension of Manwood's Charity :—

"Uppon Sute made vnto vs from m^r Justice manwoode by hys letters for thanyng of two acres of fewell woode to be spente vppon the burnyng of bryck to be provided for the makyng and setting vpp of a new howse wherein the poore shall be sett on woorke or otherwise relevyd and Roages and vagaboundes punyshed yt ys agreed that he shall haue twoo acres to be taken owte of oure woodes by thassingnement of the Receyvo^r and Surveo^r of oure woodes without enythinge to be payed therefore."

An earlier reference to brick-making occurs in 1565, when the Lady Hales became a suitor to the Chapter—

"to lease a lytle close lyeng nere to her howse [of the] Dongeon cont. ij or iij acres callyd Bryckes close whych ys thought to be a very Apte pcell of ground [to] make Breek in when the church shall haue [n]eede thereof and therefore not meete to be lett [o]wte. . . ."

There are many references to the extensive woods belonging to the Chapter. In 1565 the following curious entry occurs :—

"Yt ys agreyd that the Saltpeter men shall for theyre favo^r showed to the churche haue by assignment of the sayd Receyvo^r one Roode of woode to be takyn owte of Shoorte payeng nothinge therefore."

In 1573 a gift of six oaks was made to

"Sir Thomas Scott Knyght, Thomas Honywoode esquyer and other gentlemen of the country who are purposed at theyre and the countryes charge to Repayre Sandegat Castell."

The Chapter usually assembled at the early hour of eight¹ in the morning. When necessary they adjourned from day to day until the business was completed. Then all who were present subscribed their names to the record. In 1569 there arose

"contentiyn betwene m^r Deane and the prebendaries "

"with complaynts of gryeffs of wronges offered to some of the chapter."

It was found impossible to agree as to the election of officers,

"althow that the whoole Daye was spent in that busynes ";

and, after many ineffectual adjournments, it was agreed

"that tharchebussh. his grace shulde haue thorderieng of all the matters."

The Archbishop fixed the 5th December for the Dean and the Prebendaries to appear before him ; but this

"daye by reson of the greate Assembly of the L. Cobham and of dynisc other of the wurshipfull of thys shyre for the prynces greate affayres was not thought conuenient."

Ultimately, on December 15, the Dean and certain Prebendaries attended at Lambeth, and the appointments were made by the Archbishop. A year or two earlier than this dispute, it was found that the deliberations of the Chapter had not been kept secret, but had been revealed, causing "greate disclaunder." It was therefore decreed that, upon proof being obtained of any such offence in the future, the offender should for the first fault be banished from the Chapter a whole year ; for the second fault, three whole years ; and for a third fault, for ever.

At this period² the Chapter included one member who was eminently qualified for the "Church Militant." This was Mr. George Boleyn, whose turbulent temper has served, more than his talents, to preserve his memory. He is supposed to have been a son of the ill-fated George Boleyn, Viscount Rochford, and therefore a nephew of

¹ Occasionally at 7 a.m.

² 1566-1576.

Queen Anne Boleyn. In July, 1575, we find him "convented" before the Dean and Chapter

"yppon a bill of complaint exhibited and showed fourth by m^r willm woode a preacher of the sayd church toching a greate misbehavio^r of the sayd m^r Bolen."

He confessed

"to have stryken the said m^r woode wth a dagger,"

and he was thereupon censured and

"sequestred from the chapter vntyll his better behavio^r were approved and allowed of."

Mr. Boleyn had previously offended: He had assaulted one of the Prebendaries; had castigated a lawyer in the Chapter House; and had even threatened to pin the Dean to the wall with his dagger. He now appealed to his cousin, the Queen, and was soon after reinstated *in statu quo*. In November, 1574, it is recorded that

"m^r Bolen hath made his sute to the chapter that he may be lycensed to goo to his studye at Cambrdyge and that neu^thelesse he may receyve & haue all such cōmodities as he now enioyeth."

It was agreed to pay him his stipend and dividend

"so longe as he contynueth his studye."

In February, 1574¹/₅, he was presented to the rectory of St. Dionis Backchurch. In December, 1576, Dr. Boleyn was installed Dean of Lichfield.

The preacher on whom Mr Boleyn drew his dagger was probably the same as the

"m^r woode one of the pben[daries]"

who is mentioned in November, 1570, when

"in consideracon of his paynes takyn in reading a lecture twice eu^{ry} weke betwene mydsomer and michās"

he was granted

"of the churches liberalitie xxv^s and . . . henseforth quartely vntyll other order be takyn."

In 1562 mention is made of a person of the same name who served the Chapter as physician. It was then

"agreid that m^r willm woode the phisicon [receive] yerely foure marks to be payed [to him] quartely duryng the chapters pleasure [towards] the mayntennce of his state here [in Can]terbury the fyrst payment to begyn [at mič]as next the same willm imployeng his diligence [in] his vocacon when he is or shall be resonably callyd."

A second appointment of a like kind was made in December, 1587, when it was

“agreed that m^r D: Becon shalbe entertained as phisicion to vs the Deane and Chapiter, and shall haue a Stypend of fower pounds by yere at fower vsuall feasts by even porcions to be paied him.”

The Chapter minutes only rarely refer to the services in the Church. In 1583 complaint was made that the petty canons and lay clerks, in spite of warnings, still neglected to attend

“in such sort as their duty bound them,”

and it was ordered

“that yf eny peti cannon or laye clerke fale to be present in the quere at the begynnyng of the three dayly seruyces except in theyre weekes of lybertye that eny of theym so makyng defaulte shall the next seruyce after stande at the doore of the grate in the quere in his surplis duryng the tyme of the whole service.”

In 1567 the Chapter agreed

“that m^r Selby m^r of the children and organ player in consideraçon of his paynes had in makyng and prykyng of dyuers books of [music] for the quere shall haue fyfte three shillings and foure pens.”

In November, 1583, it was granted to

“m^r Selbye in Respect of his old age . . . to be absent from the Quyer at his owne liking.”

In 1574 it was ordered that

“for the better exerceyse of the maister and of the queresters there shall be a sett of violis and a sett of Lutes prepayred at the churches charge.”

In November, 1583, it was agreed

“that (blank) ffelbrig shall remayne as a conduct in the quere and to receyve after the rate of tenne pounds by yere.”

It was also ordered

“that henry Bryckell who the last michās quarter hath served in the quere shall haue for that quarter xl^s and shall so contynue and receyve for his stipend after viij^{li} by yere.”

At the same time it was appointed

“that m^r Deane m^r vicedeane & m^r Tresorer calling to them the Chaunter & the Quier shall see the same Quier furnyshed with songe books & to reward those that take paynes therein according to theire discretion.”

In 1573 it was agreed to

“disburse to the quenes orgayne maker beyng sent for to viewe and mende the greate orgaynes for his costs aswell at this tyme. as at an

other tyme before this and for mendyng of the lessor orgaynes in the quyere Six pounds thyrtene shillings and foure pens."

In 1578 it was ordered

"that Jaspar Blanckard the Organe maker shall have xx^{li} ouer and besides the bargayne and agrement made with hym for the amending of the greate orgaynes ";

and it was agreed that he should have

"a fee or rewarde yerely to thys ende that he shall twyse euerye yere make hys repayre to thys church to see to the sayd orgaynes and amende the same if neede so requyre."

The Chapter record contains a few references to bells.

In 1570 it was agreed that

"where the bells of late have bene stollen from the church of Seasalter that thinhabitants there shall haue fyve marks to be taken outt of thalmes money toward the bying and providing of a new bell for the sayd church."

In June, 1585, it was agreed

"that the wackeringe bell now in the house of m^r Lawse shalbe given in almes to thuse of the Hospitall at the east Bridge in this city of Canterbury to be hanged vpp there in the chappell so that it be recorded in the records of that howse that it was the gyfte of this Dean & Chapter."

In 1624 it was ordered that an agreement should be made

"with Hatch the belfounder by the great for the new making of six bells to be hung in Dunstan steeple."

If these bells were made it would be interesting to know what became of them, as there are no Hatch bells in the present Cathedral peal.

The Cathedral Grammar School, or King's School, is mentioned from time to time. In 1565 it is recorded:—

"the L. Archebusshoppes grace hath [mis]lyked of the gramer scole that yt lackyth banks [and] that yt is not bourded,"

and the Chapter agreed to see the school amended in all things necessary. Mention is made, in 1570, of the lodging of the schoolmaster, usher, and scholars within the precinct. In November, 1573, the decision was taken for Mr. Dean to journey to London

"to make meane to the quenes matie for a dispensacon to place the gran^d scole owte of the mynte in some other place wthin the Syte of the church."

In 1585 the Chapter

"decreeed that there shalbe fyue marks geuen in Reward vnto m^r Shor . . . the scolemã of the gram^m scoole to encourage hym in his

diligence [and for] his paynes takinge in teachinge & for the Releife of his charges in his late sycknes."

At the same time a sum of twenty shillings was

"bestowed vpō John Leeds a pore scoller of cambridge & somtyme one of her mat^{ties} scollers in this scoole."

We find on various occasions the school term shortened in a gruesome way by the plague dispersing the scholars to their homes. A more agreeable record occurs in 1561, as follows :—

"Yt ys Agreid that the Scolemaster and [Usher] shall haue lxxvj^s viij^d towards such [charg]ys as they shall be at in setting furthe of [trag]edies Comedyes and int^ludes this next [. . .]mas and the same to be done by thadvise [and] consent of m^r vicedeane."

Had the date been a few years later, we might fairly have assumed that Kit Marlowe had some share in the diversions.

OPENING ADDRESS OF THE ANTIQUARIAN SECTION AT CANTERBURY.¹

By PROFESSOR T. M'KENNY HUGHES, M.A., F.R.S., F.S.A.

When I learned that the honour of presiding over one of the sections of the Archæological Institute had been conferred upon me, and that the first duty which I had to discharge was to open the business of the section with an address, I cast about for a subject of which I might have some knowledge, and which should also, if possible, combine the advantage of having a special local interest. I dismissed the idea which of course occurred to me, as it does to every one in similar circumstances, of compiling a history of all the results of recent archæological research. I realised that the Institute has subdivided the subject of Archæology, so that it is treated under three heads, namely, Antiquarian, Historical, and Architectural, and that I had not to do with written evidence or inscriptions, which belong to the section presided over by that distinguished scholar, my colleague from Cambridge. Nor, again, was it within my province to speak of monuments in which distinctive features were arrived at from age to age, in the attempt to add beauty of form to utility and durability of structure. The discussion on these will be guided by the accomplished and energetic secretary of the Society of Antiquaries. Our duty in this section is to "eye the delver's toil," to note exactly where things were buried and what objects were found associated—in fact, to take special cognisance of the fossils of Archæology. This being the case, I felt that I might legitimately urge upon your notice a stricter observance of the methods of geological research in dealing with this class of evidence.

I thought, further, as we were to meet in a region where man had from the earliest period of which we have any record employed flint as the material of his instruments of every-day use, as well as, in all probability, for

¹ Read at Canterbury, July 22nd, 1896.

international relations, and, as we should be walking over flints together every day for a week, that I could not do better than lay before the section the results of a long and somewhat detailed study of flint and flints, of the mode of occurrence of flint; the vicissitudes through which flints pass after they have been washed out of the parent chalk; and the changes which nature works in the condition of the surface by fracture and chemical action.

But I learned that there would be no opportunity of exhibiting such a collection as would be necessary for the proper illustration of the subject, nor would the time at my disposal suffice for the purpose. So I found I must relinquish the larger scheme, and, instead of giving a conspectus of one branch of the subject, I have endeavoured to offer a generalisation from many different observations along various lines of enquiry—a plan which allows me to refer to the history of flints so far as possible without laying a large quantity of illustrative specimens before you in support of my statements, and will enable me to touch upon several other points of interest arising out of recent discoveries.

The heading under which I would link my remarks together is the continuity of domestic life in Britain from the earliest times, as shown by the objects of every-day life which have been disinterred.

Here at once I find I have to speak of flint.

The history of primæval man in Britain belongs exclusively to what you have separated off as the antiquarian section of Archæology. It depends almost entirely, so far as accurate observation and legitimate inference may be held to have established satisfactory conclusions, upon the use of stone implements. The story of Palæolithic man may now be considered to be based upon sound evidence, but that is almost entirely derived from his use of flint. The anthropological evidence from the supposed primæval skulls or skeletons is so far too doubtful, both as regards the finding and the characters, to justify our attaching much importance to it. But the implements exhibit a uniformity of type which indicates a common origin. Moreover, they have been searched for where expected from analogy, and there found. Much false and foolish evidence was adduced in

the earlier stages of the enquiry, but that has now been sifted out and set aside.

Now we are looking for evidence of man's existence in the much more remote past, and the enquiry has been much prosecuted in Kent. But we must not again allow the research to be impeded, and results discredited, by the too hasty admission of unsatisfactory evidence. It may be true—and it has been supposed that it has been already proved—that man did inhabit Kent long before the time of the makers of the stone hatchets which we find in the gravel of Reculver or in the brickearths near Rainham. In this enquiry into the more remote history of man chief reliance is placed upon fragments of flint which are supposed to show traces, not indeed of having been fashioned, but of having been used by man. The term, "palæoliths" which has been applied to these earlier stones is unfortunate if only on account of the finality involved in the superlative.

Whatever may be the working hypothesis with which we proceed to follow up this line of research, the one most necessary bit of knowledge for its safe prosecution is the history of the vicissitudes through which the flints have passed which we are examining with a view to discovering traces of man.

None of these flints are in the position in which they were formed. All of them have been transported by natural agencies. They have run the risk of being trampled on, kicked, and scrunched against one another by animals. They have been exposed to irregular and rapid expansion and contraction with changes of temperature, and to various chemical actions which must affect the condition of the surface.

We must have made ourselves familiar with all the operations of nature which affect the form and condition of a flint, and must have satisfied ourselves that none of these can have produced the result we observe, before we can safely pronounce that any given specimen certainly shows traces of human handiwork, however likely it may seem that the fragment might have been turned to account by primæval man. The majority of the fragments which have been referred to this pre-palæolithic age are not of the form into which flint was commonly

shaped by palæolithic man, nor are the fractures, which are supposed to indicate use, of the same, or approximately the same, date. We shall probably have further opportunities of discussing this question in the course of the week.

All the commoner types of stone implement are suggested by natural forms. In illustration of this point I once made a large collection of flints, which is now in the Jermyn Street Museum. There must often be considerable doubt respecting specimens on which there are not a great many chips. They may be specimens rudely fashioned by man, or they may be natural forms accidentally chipped along their weaker or more exposed edges by the various operations to which I have referred above.

But there is no great step from using a flint with a naturally formed cutting edge and trimming another so as to adapt it for similar use. The continuity in the objects of every-day life shows itself thus early in the fact that rough flints were picked up and used, then shaped a little where the natural form was not quite what was required.

Nor do the proofs of continuity end with the more ancient types known as palæolithic, for, among the wasters and flakes of almost any neolithic implement manufactory, implements are found hardly distinguishable from palæolithic leaf-shaped and oval forms. These are the natural flints which have been rough dressed and prepared for the more careful work by which the newer or neolithic implements were elaborated. In fact, the embryology of the more highly-finished forms shows that they have, in the course of their development, passed through the stages at which the implements of the palæolithic type were arrested.

Even among the ground and polished implements made out of the basic rocks, which are commonly known as greenstones and basalts, natural forms seem to have lent themselves readily to the requirements of primæval man; as I first suspected among the weathered rough-surfaced celts so common in West Yorkshire and recently saw the proofs of so clearly on the coast of Brittany. The rock naturally breaks into fragments, which are

rolled on the beach into long tapering pebbles such as require only to be ground at the broad end into a cutting chisel edge to furnish just such an implement as was commonly used by neolithic man. Very likely the change from unground to ground was the result of importation or even of invasion, but it is too small and unimportant a thing, though very conspicuous in archæology, to lead us to infer from it any considerable break in the continuity of the habits and appliances of everyday life.

Vast difference of circumstances and great lapse of time between palæolithic and neolithic man are inferred from the geographical changes which are known to have taken place, and from the local extinction of whole races of animals.

But lapse of time does not imply any abrupt interruption of continuity, and the local extinction of species does not involve any sudden destruction. The animals that lived in the palæolithic age did not disappear all at once. Indeed, the French antiquaries have classified the remains of primæval man by reference to the groups of animals that successively prevailed with him.

Many of the forms of life which were common in Southern Britain at the commencement of the neolithic age are wholly or locally extinct, such as the Elk, the Red and Roedeer, the Bear and the Beaver. Many have become extinct in quite recent times, such as the Marten, the Kite, and the large Copper Butterfly; some are now so scarce that we may expect them to disappear in a few years, such as the Badger or the Swallow-tail Butterfly. Earth movements and other geographical changes of considerable extent have taken place since the commencement of neolithic times, and when, as we look back through the ages, the perspective of the receding past has reduced this varied history to a thin line, changes will be found to have taken place at the time indicated by it of the same kind as those which we now refer to the close of the palæolithic age.

As we follow down the history of domestic appliances we by-and-bye find the use of stone superseded by that of metal. Here we meet with a new difficulty, which makes negative evidence of less value than in the case

of stone. The metal is perishable; the surface of the bronze is often so corroded that an ordinary workman would notice nothing peculiar in a valuable relic, and would throw it away. The iron often leaves but a rusty streak.

There is plenty of evidence of the overlap of stone and metal, of bronze and iron, showing continuity of domestic life with the gradual incoming of new inventions.

But enough evidence has been collected to suggest that some of the earlier bronze implements were imitations, as far as the form was concerned, of the common flat stone celt. Metal was scarce, and came in slowly. Stone was still used by the poor folk down to the Roman occupation of Gaul and probably of Britain. Roman ware was found by Miln, with stone implements, in the rubbish round a Roman villa in Brittany. The obvious explanation of this was that the Romans employed native servants, who brought their own instruments with them. There might be cases in which the natives had looted a Roman villa, but the buildings and other remains did not admit of that explanation in the case of the excavations in the Bosseno.

The change from the ancient British mode of life was not *abruptly* interrupted by that greatest of all episodes in our history—the conquest of Britain by the Romans; and yet nothing has ever happened which has produced so great a revolution in all the appliances and habits of life. The imprint of Roman civilisation was never obliterated. Once the better class of Roman pottery had come into use it held its own.

There does not seem to be much meaning in the term Romano-British. The Romans who came here did not modify their appliances so as to make them approach the British type, nor did the British modify their objects of every-day life; but by degrees, without much interruption of continuity, the Britons adopted the Roman methods and instruments.

Other important modifications mark the making of the old English people. It was not by the first inroad of Angle, Saxon, Frank, Jute, or Dane, that the great change was brought about. These rough people do not appear to have introduced any appliances that had such utility

or beauty as to supercede at once those left among the Romanised British. Moreover, as time went on, each new body of invaders found more and more of their own kith and kin established in the country.

Here I will try to accentuate the point of my remarks and the inference I would have drawn with regard to the methods of observation from which alone any trustworthy deductions can be obtained for the construction of such a sketch as I have been endeavouring to lay before you.

In studying the fossils of archæology and their teaching the methods of geology must be followed. It is not enough to say that under such-and-such a house or street, at such-and-such a depth, such-and-such an object was found. It will not do to record the information of an obliging workman, who soon finds out what lends an interest to the find. You will easily obtain evidence, if you seek for it by interrogation, that a quite recent jug was obtained forty feet down, and may elicit from your informant by cross-examination that he found it when digging potatoes. The story of Dr. Buckland's Paramoudra is another example.

You must carefully observe each section for yourself and note what objects are confined to one layer, and which of them, ranging through a longer period, recur at several horizons.

It was by observing in this way in the top layers objects of the last two centuries, in the next below mediæval objects, and in the lower layers Roman remains, that I made out that a certain corner now built over in the midst of the colleges of Cambridge had been a laystall or place where rubbish might be shot for fifteen centuries at least.

It was from noting the perpetual association of a certain class of pottery of Roman type with undoubted mediæval fragments that I inferred that the Roman type of commoner ware did prevail all through the six centuries from the withdrawal of the Romans to the Norman Conquest. It was only by this method I could show that this was not merely an accidental mixture of ancient and modern refuse.

To return to our enquiry.

The Norman Conquest, like the Roman occupation, brought in a mixed crowd. As the Romans grafted on

to British life Huns and Asturians and Gauls, some with more, some with less facility of assimilation to the native British, but all disciplined to Roman civilization, so the Normans brought in an army drawn from various races, each with their own well-marked idiosyncracies. There were, of course, many quick-witted but volatile French among them ; but it is a great mistake to talk of it, as is commonly done on the other side of the channel, as if it were a conquest of England by the French. The backbone of the army was Norse, which readily coalesced with the Scandinavian element on this side the channel, while the Celts from Brittany may perhaps explain some of the colonies of the Celtic type so commonly found in East Britain. Their leader, William, is shown by an early painting, preserved in Caen, which was copied from a still earlier fresco, to have been a reddish haired man ; and though Matilda, to distinguish the combatants on her embroidery, gave prominence to the dark haired French type among the Normans, William Rufus' hair and complexion support the inference, drawn from the Caen painting, that his father was a red Norseman and no Frenchman.

Now, excavations among the scarce remains of the tenth, eleventh, twelfth, and thirteenth centuries tell us of no break in the ordinary domestic appliances throughout all that transition period. And to appeal in confirmation to another of our sections the early Norman castle was the same as the Old English burh—a fort upon a mound. If we examine a collection of the remains of ordinary household appliances of the nineteenth century in the refuse of any house or town we shall see a vast difference between them and the corresponding remains of the fifteenth century ; yet the change has been gradual and the continuity kept up. So in the more remote past the whole result after centuries may be great, but the change was not abrupt or violent.

In these enquiries language goes for very little : the physical features of the people are worth more ; but the most trustworthy evidence is that derived from the spade. In the deep trench we can see for ourselves layer after layer, each holding the waste and refuse and broken vessels of every-day life. This is the record which has

been so neglected by Archæology. We ought to be able to study this in our museums. Drawers of arranged fragments should enable us to infer the incoming or the overlap of each type. But where is there a museum which displays, or even preserves in an accessible form, all the objects which have been found together at distinguishable stages? Where can we take a basketful of objects and by comparison assign, if not a date, at any rate a relative place to them? It is from the neglect of this kind of evidence that a wrong impression of the amount of interruption of ordinary life and of the relation of the conquered to the conquerors has been so generally prevalent and the great fact of the continuity of our domestic history throughout invasions and conquests and civil wars has been so often lost sight of.

In this ancient city relics which form as much part of its history as a leaf or a chapter of its most valued historical document are now and again exposed. Surely I need hardly appeal to the citizens of Canterbury, or to the archæologists now gathered here and inspired by its stirring memories of 2,000 years, to support every effort to accept and preserve the priceless records which are from time to time presented to them in the progress of necessary renovation and expansion.

INVENTORIES OF THE GOODS OF HENRY OF EASTRY
(1331), RICHARD OF OXENDEN (1334), AND ROBERT
HATHBRAND (1339), SUCCESSIVELY PRIORS OF THE
MONASTERY OF CHRISTCHURCH, CANTERBURY.

Transcribed and annotated by W. H. ST. JOHN HOPE, M.A.

The interesting series of inventories and accompanying memoranda that forms the subject of this paper is contained in a narrow paper book of sixteen leaves, each measuring $16\frac{1}{2}$ by 6 inches, which forms part of the manuscript numbered E. 27 in the Chapter Library at Canterbury. It is written throughout by the same scribe, and its contents have therefore no doubt been copied into the book from the original documents (which are now lost) for preservation and reference.

Since a monk, even if prior, had in theory no private property these inventories do not enumerate the goods of the priors themselves, but are lists of such plate and other valuables belonging to the monastery as were lent to the prior for use during his lifetime. Such lists often took the form of an indenture and on the death of the holder were checked over and note made of any additions or defects. Cases in point will be found in the documents before us.

The first list is an "inventory of all the goods of Henry, prior of Christchurch, Canterbury, on the day of the election of prior Richard, viz. on the 26th day of April A.D. 1331, after the death of the said Dan Henry the prior his predecessor of good memory."

It enumerates the books, the vestments, mitres and other ornaments of the prior and his chapel, the silver plate, the hangings and carpets and other furniture of his lodging, the pewter and copper vessels, and the various utensils and instruments of domestic use, and the horses in his stable.

The actual contents of each chamber in the prior's lodging are not specified, perhaps because they were reckoned as fixtures which passed as a matter of course from one prior to another. Mention is however made of the *camera* or chambers in general, the privy chamber

(*privata camera*), the hall (*aula*), the greater and lesser chapels (*magna capella* or *capella major*, and *capella minor*), of the wardrobe (*garderoba*), and of the kitchen (*coquina*) and buttery (*botelria*).

The prior Henry referred to was the famous Henry of Eastry. He entered the monastery as a novice and after, no doubt, filling various offices was elected prior in April 1285. He died on 8th April, 1331 at the advanced age, it is said, of 92, after being prior for forty-six years. During his priorate he ruled the monastery well and prudently, and succeeded in paying off a debt of 3000 marks with which the convent was burdened. He was also an energetic builder, and both in the church and monastery he left behind him evidences of his artistic taste and munificence.

According to a manuscript list of the archbishops and priors compiled in archbishop Warham's time Henry of Eastry was buried in the church *inter imagines sanctarum virginum Sythe et Apollonie*.¹

This burial place has hitherto been unknown and unidentified, but there can be little if any doubt that prior Henry's tomb is that in the south aisle of the quire which has until now been called the monument of archbishop Walter Reynolds, who died in 1327. The recumbent effigy upon it is not that of an archbishop, but of a mitred prior in mass vestments without staff or crosier. The tomb is flanked by two large niches, now empty, which we may reasonably suppose held the images of St. Syth and St. Apollonia. Between the flanking tabernacles once rose a handsome canopy, but this has long been taken away. In the Treasurers' Accounts for 1330-31 is an entry:

Pro tumba domini H. prioris xxj.li. iij.s. iiijd.

which no doubt refers to the monument under notice.

Both Dart² and Professor Willis³ have printed the long list which has been preserved⁴ of the *Nova opera in*

¹ C.C.C.C. MS. 298, p. 118.

² *The History and Antiquities of the Cathedral Church of Canterbury, And the Once-Adjoining Monastery*: By the Reverend Mr. J. Dart (London, 1726), Appendix, No. V.

³ *The Architectural History of the*

Conventual Buildings of the Monastery of Christ Church in Canterbury, by the Rev. Robert Willis, M.A., F.R.S. (London, 1869), 185-187.

⁴ In *Register* K. f. 220, and Cott. MS. Galba E. IV. (British Museum).

Ecclesia et in Curia tempore II. Prioris, the total cost of which was £2184 18s. 8d.; it need not therefore be here repeated. There are, however, in the list certain entries relating to the buildings occupied by the prior himself which may properly be noticed.

The prior's *camera* or lodging at Christchurch, Canterbury, consisted of an extensive group of chambers, between the great dormitory and the infirmary, over two sides, the east and south, of the infirmary cloister. This cloister, like all the principal divisions of the monastery, is of Norman origin, and part of its beautiful twelfth century arcade still remains on the east side. The south alley was rebuilt on an enlarged scale about 1250 as the subvault of the prior's chapel above. In the well-known Norman drawing a building lettered *Camera prioris vetus* is shewn at the north-east corner of the infirmary cloister, where part of it remains. The prior's chapel was being built in 1254,¹ and was finished by prior Roger (1258–1263).² It was 64 feet long and 21 feet wide, but was unfortunately pulled down about 1700. Its place is now occupied by the Howley Library. The prior's chapel was no doubt connected with the *camera vetus* by other chambers over the eastern alley of the cloister, but all these were rebuilt or enlarged by Henry of Eastry soon after his election as prior. The extent of his works is thus enumerated in the list above-mentioned :

Ab anno Domini. M ^o .	Camera magna Prioris cum pictura.
CC ^o lxxxv ^o usque ad	Camera minor cum Capella ³ et novo Camino.
annum Nonagesimum	Camera longa cum novo camino.
	Camera ad scaccarium cum diversorio ibidem.
	Studium Prioris.
Anno. M.CC.XC.j ^o	Nova Camera Prioris plumbata. cum Garde- roba. Camino. Celatura. pictura. et pavi- mento aliarum Camerarum . xxxvj.li. xviij.s. vj.d.
Anno. M.CC.XC.iiij ^o	Nova panetria et nova coquina plumbata in Camera Prioris .xiiij.li. xviii.s. ⁴

The buildings here specified formed part of the group round the *camera prioris vetus*, which contained the prior's

¹ In the Treasurers' Account for 1254 is a payment of £14 "ad capellam prioris."

² "Capellam inter Dormitorium et Infirmaryam honorifice perfecit." Henry Wharton, *Anglia Sacra*, i. 140.

³ Professor Willis suggests (p. 185, note) that "the word *capella*, coupled with *camino* in" this and another passage "appears to mean the chimney hood, and not a chapel."

⁴ Register K. f. 220.

own lodging and offices, and accommodation for his servants, and the inventory refers to the contents of these chambers. But there is shewn in the Norman drawing, on the north side of the infirmary chapel, a building lettered *Nova Camera Prioris*. This was gradually enlarged in later times and eventually became an extensive establishment or mansion for the reception of the more distinguished guests of the monastery, who were assigned to the prior. Its history, however, does not now concern us, but its existence is here noted to avoid confusion with the *camera vetus* where the prior lived.

Of Richard of Oxenden, who was elected prior 26th April 1331 in succession to Henry of Eastry, very little is known. He died 4th August 1338 and was buried in the chapel of St. Michael (on the east side of the south transept). The inventory made during his priorate, in 1334, contains a list of the plate assigned to his use and of the furniture in his lodging. This is in part a repetition of the inventory of 1331, but it gives fuller details and contains as well as a number of additional items.

Robert Hathbrand was elected prior in succession to Richard of Oxenden, and held office for thirty-two years, dying on 16th July (xvii Kal. Aug.) 1370. He was buried in St. Michael's chapel. Among the buildings ascribed to him in the Kalendar of Obits is *Cameram aliam plumbo coopertam. juxta la gloriet*.¹ This new chamber was an addition to the prior's lodging, the Gloriet being the upper chamber at the north end of it.

The inventory made during Robert Hathbrand's term of office is a very short one, drawn up in 1339, the year after his election. It is confined almost entirely to bed furniture, carpets, hangings, etc. all of which are enumerated in the preceding inventory, though not always in identical terms.

The inventory of 1331 has a number of marginal annotations of later date which record the disposal or whereabouts of various articles. The inventory of 1334 has similar additions, but fewer in number. All have been duly noted in my transcript.

The following is the text of the inventories :

¹ Lambeth MS. 20. f. 201b.

f. 1] Inventarium Omnium bonorum Henrici Prioris Ecclesie Christi Cantuar⁹ die eleccionis Ricardi Prioris videlicet xxvj^o die Aprilis Anno Domini Millesimo CCC^{mo}. Tricesimo Primo. Post obitu bone memorie dicti domini Henrici Prioris predecessoris sui. In primis

Libri de Theologia

Biblia

Thomas super Lucam et Johannem

Thomas super Matheum et Marcum

Epistole Pauli glosate

Summa Longobardi

Tractatus super summas Longobardi

Secunda secunde super librorum summarum

Summa confessorum

Legenda dominicalis et sanctorum .xij. leccionum per totum annum

Item Legenda sanctorum

Liber Cassiodori senatoris

Glose super ecclesiasticis

Capituli et questiones libri Augustini

Sermones dominicales et sanctorum per annum Primi

Sermones dominicales et sanctorum per annum Secundi

Sermones dominicales abbreviati

Liber de exemplo sacre scripture

Veni mecum

Liber de exemplis de dietis Patrum

Collectarium ex multis (?)

Planetus Bernardus de dolore matris Christi

Prima pars concordancium ab .a. usque .d.

Secunda pars concordancium ab .d. usque .l.

Tertia pars concordancium ab .l. usque .q.

Quarta pars concordancium ab .q. usque ad finem

Veritas Theologie et liber de proprietatibus rerum

Summa librorum de Theologia .xxvj.

Libri de Jure Canonico

Decreta nova magna Prima

Item .Decreta secunda

Item .Decreta tercia

Huguncio super decretis

Item .Rosarium super decreta [*sic*]

Decretales nove apparate Prime

Item .Decretales nove apparate. Secunde

Item .Decretales nove apparate tercie. cum vj. libris Decretalium

Item .Decretales nove quarte. non apparate

Item .Decretales abbreviate cum summa Reymundi

Item .Decreta vetera cum integra

Item .vj. libri Decretalium cum glossa. G. de Baysio. J. Monachi. et Johannis Andree

Item .vi. et. vij. libri decretalium sine glosa

Item .glose. J. Monachi super .vj. libris decretalium

Summa que dicitur copiosa. Prima

Item .Summa copiosa. secunda

Prima pars Hostieñs super primum et secundum librum decretalium

Secunda pars Hostieñs super .iij. .iiij. et v. libris decretalium

Speculum Judiciale

f. 1b] Item liber qui dicitur Catholicon

Innocentius super decretalibus

Summa Goffredi

Summa Mandegoti: de eleccionibus celebrandis

Summa Martiniiani

Repertorium Juris

Nove constitutiones conciliorum generalium & Provincialium

Summa Compostolani cum summa Maudegoti

Summa super decretalibus.

Summa Reymundi glossata

Summa librorum de Jure Canonico .xxix

Libri de jure Civili

Codex

Instituta

Summa placentini super Instituta

Liber de legibus anglie qui dicitur Bracton.

Liber de statutis Regni Anglie

Hystoria Trojanorum.

Liber de Regimine Principis

Liber qui dicitur Rageman

Summa de artificio scribendo

Liber de dictamine stili Romani

Registrum vacacionis

Registrum omnium officiorum Ecclesie Cantuariensis.

Registrum omnium cartarum et Composicionum Ecclesie Cantuariensis.¹

Memoriale multorum²

Summa librorum de Jure Civili .xiiij.

Libri de Officijs Ecclesiasticis

Missale magnum novum

Item .Missale novum. in minore volumine

Item .Missale vetus parvum

Item .Missale abbreviatum cum collectare

Item .Missale novum abbreviatum

Ordinale

Diurnale

Psalterium Primum

¹ This forms the first part of Register E. in the possession of the Dean and Chapter of Canterbury.

² This volume is now in the British Museum (Cott. MS. Galba E.IV.). It bears the heading on the first leaf: *Memoriale multorum Henrici Prioris,*

and is practically a memorandum book of divers matters touching the rights and privileges, the manors and revenues and possessions of the monastery of Christchurch, Canterbury, compiled under the direction of prior Henry of Eastry.

Psalterium parvum secundum cum ympuario et Cant^o.

Liber qui dicitur Pontificale

Novum Portiforium de usu Sarum.¹

Summa librorum de Officijs Ecclesiasticis .xj.

Summa summarum omnium librorum .^{xx}iiij.

Vestimenta Ecclesiastica H. Prioris predicti. In primis

²Casula Tunica et dalmatica de Inde³ samitto brudato aureis floribus gladue

²Item Tunica .j. de inde in parte brudata aureis floribus gladue.

⁴Item Casula .j. palliata de Inde⁵ cum tunica et dalmatica de inde exterius et de rubeo samicto interius.

f. 2] ⁶Item Tunica .j. de Inde exterius et crocei coloris interius

⁶Item dalmatica .j. de Inde exterius et rubei coloris interius

⁷Item Casula .j. palliata de purpura diasperata⁵ cum tunica et dalmatica de purpura exterius et de panno croceo interius

⁶Item Casula .j. palliata cum Tunica et dalmatica de viridi panno diasperat auro

⁶Item Casula .j. palliata cum duabus tunicis et .j. dalmatica de subrubeo panno supe en vin diasperat

⁴Item Casula .j. palliata de rubeo diasperat rosis aureis

⁴Item Casula .j. palliata rubea de plano panno

⁶Item Tunica .j. exterius rubea et interius alba

⁶Item Tunica .j. nigra exterius et crocei coloris interius

⁴Item Casula .j. alba palliata de plano panno diasperat

⁶Item Casula .j. palliata cum duabus Tunicis et duabus dalmaticis de albo panno diasperat parvis rosis de serico

⁶Item Tunica .j. de albo panno diasperato aureis Griffonibus

Summa Casularum .ix.

Summa Tunicarum et dalmaticarum .xxj.

Cape. In primis

⁶Capa una preciosa brudata et diasperata auro

⁶[Item Capa una de Inde Samicto brudat aureis floribus]⁸

⁶Item Capa una de Inde cum aureis arboribus et besancijs aureis

⁶Item .due cape de Inde samito brudate aureis floribus gladue.

⁶Item Capa .j. alba diasperata parvis rosis

Summa Caparum .v.

¹ The presence of a Sarum porthos in a monastic house, instead of the Benedictine *breviarium*, should be noticed.

² In margin: "Prior habet."

³ *Indus*, blue.

⁴ In margin: "Tercius capellanus habet."

⁵ "Prior" written over.

⁶ In margin: "Prior."

⁷ In margin: "Subcapellanus."

⁸ This entry is struck through.

Albe

- ¹Alba .j. de serico cum parvis Rosis rubeis et viridibus cum paruris brudatis de auro²
¹Item .alba .j. de serico plano cum rubeis paruris auro brudatis
¹Item .iiij^{or}. albe unius secte de samito de Inde brudate aureis floribus gladue et scuto Regis Anglie.
⁴Item .alba .j. cum amictu cum paruris de rubeo samitto brudatis ymaginibus brudatis aureis
⁵Item .alba .j. cum amictu cum paruris de diversis coloribus et auro brudatis de diversis armis.
⁵Item .alba .j. cum paruris brudatis de diversis parvis scutis
⁵Item .alba .j. cum paruris consutis [cum roseis rubeis auro brudatis *struck through*] de diversis scutis ejusdem operis.
¹Item .alba .j. cum paruris diasperatis de albo panno cum amictu consuto.
⁴Item due tabule de rubeo samitto brudate cum ymaginibus aureis.

Summa albarum .xj.Mitre⁶ dicti domini. H. Prioris

- ⁷Mitra una cum lapidibus preciosis ornata et margaritis cooperta. precium .xx.ii.
⁷Item .alia Mitra lapidibus preciosis ornata et margaritis cooperta. precium .xiiij.ii.

Summa Mitrarum .ij.

f. 2b.] Item .vestimenta Ecclesiastica dicti domini. H. Prioris

Colaria⁸

- ¹Colarium .j. cum amanz⁹ de diversis formis
¹Item .Colarium .j. de losenges et perulis diversi coloris
¹Item .Colarium tercium de perulis de Inde et floribus deauratis
Summa colariorum .iij.

¹ In margin: "Prior."

² It will be noticed that the albe itself was of silk, embroidered with small red and green roses, and that the apparels to it are separately described. The next albe was of silk, but plain, with red apparels embroidered with gold.

³ It is uncertain whether these albes were of blue samite, or whether the apparels were of this costly stuff.

⁴ In margin: "Subcapellanus."

⁵ In margin "iij^{us}. capellanus."

⁶ The prior of Christchurch, Canterbury, was empowered to use the gloves and the dalmatic, as well as the mantle at table by bull *anno pontif.* 8^o of

Innocent III (1198-1216). Honorius III (1216-1227) by bull *anno pontif.* 5^o granted the use of the mitre, and by a later bull in the same year the use of the ring. The use of the crosier in addition to the mitre, tunic, dalmatic, gloves, and ring was not granted until 1378 by Urban VI (1378-1389). The respective bulls will be found in Register A. f. xxvi.

⁷ "Sacrista" in margin.

⁸ These appear to have been "collars" or amice apparels to wear with the richest suits of vestments.

⁹ i.e. enamels.

Cirothece

¹Cirothece .ij. cum duabus magnis Kamau² et aliis albis minoribus Kamau.

¹Item .ij. Girothece cum lapidibus et peralis diversi coloris

¹Item .iiij. Girothece cum magnis tassellis minus secte

¹Item quatuor Girothece cum parvis tassellis argenteis et deauratis.

Summa Girotheccarum sericarum .xij.

Item Ornamenta Ecclesiastica aurea argentea et eburnea dicti domini H. Prioris die et anno predictis. In primis

³Calix unus. cum patena argentea et deaurata precium .lx.s².

⁴Item Calix .j. minor cum patena argentea et deaurata precium .lxij.s².

¹Item parvus Calix cum patena cum pede tornatili precium .xviij.s².

Summa Calicum .iiij

Urceoli

⁵Duo urceoli argentei cum tribus circulis deauratis et gemmis in summitate coopertur⁶

³Item duo urceoli amalati precium .xxx.s².

³Item duo urceoli argentei pro Capellanis precium .x.s.

⁴Item urceoli argentei ad magnam Capellam quorum .j. deauratus.⁷ ponderant .xx.s²

Summa urceolorum .viiij.

Superaltaria⁸

⁸Superaltare .j. de alabaustro longum ornatum argento deaurato et operato precium .xl.s.

⁹Item aliud superaltare minus de alabaustro. precium .xx.s².

⁹Item superaltare tercium. de Jaspide ornatum argento deaurato et operato. precium .lx.s.

²Item superaltare quartum de Geet ornatum argento deaurato et operato. precium .xiiij.s. iiij.d.

Summa superaltarium .iiij.

Crux.

Item .j. Crux de Jaspide. precium .C.s. [Sacrista habet *added*]

¹ "Sacrista" in margin.

² *i.e.* cameos.

³ "Subcapellanus" in margin.

⁴ "tercius capellanus" in margin.

⁵ "Prior" in margin.

⁶ Perhaps a ruby on the wine emet

and a pearl or diamond on that for the water.

⁷ The gilt one would be for the wine.

⁸ Portable altar-slabs. The fourth was of jet (*de Geet*).

⁹ "inter reliquias" in margin.

Anuli

¹Anulus magnus pontificalis cum saphiro quadrato et duabus earolis de rubinis et smaragdinis. precium .x.li.

¹Item alius anulus cum albo Caman cum quatuor rubinis et quatuor smaragdinis. precium .x. mare².

¹Item .tercius anulus cum magno saphiro sine carola. precium .l.s.
Summa anulorum pontificalium .iij

Morsi

¹Morsus .j. magnus argenteus cum .vj. magnis saphiris et magno camau in medio omnibus in puro auro scituatis. precium .x.li.

¹Item .duo Morsi minores argentei amallati | unus cum Crucifixo et alius cum ymagine beate Marie cum duobus angelis astantibus. precium .xxx.s.

Summa Morsorum .iij.

f. 3]

Thurribulum

²Item .Thurribulum .j. argenteum et deauratum. precium .iiij.li.

Batelli ad Thus³

⁴Batellus .j. magnus amallatus ad Thus. precium .lx.s.

²Item alius batellus minor ad thus cum coleari precium .xx.s.

Summa Batellorum ad thus .ij.

Quodam vas argenteum ad aquam Benedictam

²Unum vas argenteum et deauratum ad aquam benedictam cum aspersorio argenteo. precium .l.s

⁵Item Cuppa .j. argentea et deaurata intus et extra curta et operata ad imponendum corpus domini. precium .lxx.s. est in Thesauraria

Pelves⁶ ad Capellam Prioris

²Due pelves argenteae ad Capellam Prioris. precium .xlvj.s⁷.

Summa patet.

²Item .Campana .j. argentea ad Capellam Prioris. precium .xxvj.s.
 viij.d

¹Item .Calepungnus⁷ .j. deauratus precium .xx.s.

¹ "Prior" in margin.

² "Subcapellanus" in margin.

³ Incense-boats or "ships."

⁴ "Sacrista" in margin.

⁵ "Thesaurarius" in margin.

⁶ Basons for washing the hands at Mass.

⁷ A pome or vessel filled with hot water for warming the priest's hands at Mass in winter.

Candelabra

¹Item .iiij^{or}. Candelabra in magna Capella Prioris argentea platea cooperta. precium .x.s.

Summa patet.

Ymages beate Marie eburnee

.j. ymago eburnea sancte marie et filii sui precium .xl.s. Frater Thomas Stoyl habet.

Item alia ymago eburnea beate marie maior cum tabernaculo eburneo in Capella Prioris. precium .C.s.

²Item .tercia ymago beate marie cum majestate in tabernaculo eburneo precium .l.s. [est in Thesauraria³]

Summa ymaginum .iiij

Vasa argentea in Camera dicti domini H. Prioris die et anno predictis

Olle argenteae ad vinum .vij. de quibus :

Una olla ponderat .lx.s.

alia olla ponderat .lx.s.

tercia olla longa ponderat .xxx.s.

quarta olla ponderat .xlv.s.

quinta olla ponderat .liij.s.

sexta olla minor aliis ponderat .xl.s.

septima olla que est in Refectorio ponderat .lx.s.

Summa precij. xvij.li. viij.s. iiij d.

Olle argenteae a[d] aquam .vj. de quibus :

una olla ponderat .xxvj.s. viij.d.

Item .alia olla ponderat .xxv.s.

Item .tercia olla operata ponderat .xviij.s. iiij.d.

Item .quarta olla ponderat .xiiij.s. iiij.d.

Item .quinta olla ponderat .xiiij.s. iiij.d.

Item .vj. olla ponderat .xvj.s. viij.d.

Summa precij .C.xiiij.s. iiij.d.

f. 3b] Vasa argentea in Camera dicti domini H. Prioris die et anno predictis

Cuppe argenteae in Camera ejusdem H. Prioris .xiiij.

Una Cuppa cum tribus [*sic*] ponderat .xl.s. et precium .l.s.

Item alia Cuppa cum amalio in fundo ponderat .xxvj.s. precium .xxx.s.²

Item .tercia Cuppa ponderat .xxij.s. et precium .xxv.s.

Item .quarta Cuppa larga et curta cum amalio in fundo precium .xl.s.

¹ "Tercius Capellanus" in margin.

² "Inter reliquias" in margin.

³ First altered to *restiarior*, then reinstated, and finally the words in brackets struck out.

Item quinta Cuppa deaurata et garnettata cum columpnis in pede.
precium .iiij. marc⁹.

Item .vj^{ta}. Cuppa. precium .xxx.s.

Item .viij^a Cuppa que est in refectorio precium .iiij. marc⁹

Item .viij. Cuppa. precium .xxx.s.

Item .ix. Cuppa precium .xxv.s.

Item .x^a Cuppa precium .xxvj.s. viij.d.

Item .xj^a Cuppa precium .xxj.s.

Item .xij Cuppa intus et extra deaurata et garnettata precium .l.s

Item .xiiij^a Cuppa curta nova ponderat .xiiij.s.

Summa .xxij.li. viij.s. iiij.d

Ciphi argentei sine pedibus .xij.

xij. Ciphi argentei sine pedibus numero signati et distincti et
unius forme¹ qui ponderant .x.li.

Summa patet.

Pelves argenteæ .xj.

vj. pelves argenteæ magne ponderant .xviij.li.

Item .ij. pelves argenteæ ponderant .lxiiij.s. iiij.d. que sunt in
Refectorio propter hospites.

Item .j. pelvis vetus ponderat .xxiiij.s.

Item .pelvis .j. argentea operata cum pede ad species precium .l.s.

Item .j. plata argentea parva cum pede et amalo in fundo ad
species² precium .xvj.s. viij.d.

Summa .xxv.li. xiiij.s.²

Salaria³ argentea .iiij.

.j. Salarium magnum argenteum cum cooperculo precium .xxx.s.

Item .j. salarium minus cum cooperculo. precium .xx.s.

Item tercium salarium parvum cum cooperculo Precium .x.s.

Summa .lx.s.

Scutelli⁴ magni argentei

Scutellus magnus argenteus ad Elemosinam Prioris ponderat
.x.li. x.s et precium .xj.li.

Item .Scutellus magnus argenteus ejusdem Prioris ad pitantiam
in Refectorio ponderat .xxvj. marc⁹. et precium .xviij.li.

Summa .xxix.li.

Scutelli et salsaria argentei ad coquinam

x. Scutelli magni argentei videlicet *charjours* que ponderant
xviij.li. xv.s.

Item .Scutelli minores .lxxviij. qui ponderant .lxxiiij.li.

Item .salsaria argentea ^{xx}.iiij. viij. que ponderant .xxviij.li. x.s.

Summa ponderis et precij omnium scutellorum et salsarium ad
coquinam .C.xix.li. v.s.

¹ Probably a set or "nest" of
beakers.

² A spiceplate.

³ Saltcellars or Salts.

⁴ Chargers or large dishes.

Coclearia argentea, videlicet, in Botelria¹:

- xxij. unde .ij. ad ova.² que ponderant xxvj.s. viij.d
 Item .xij. coclearia qui signantur Prioris ponderant .xv.s.
 Item .xij. coclearia. J. de Gore ponderant .xviij.s. iiij.d
 Item .xij. coclearia in parte deaurata ponderant .xx.s.
 f. 4] Item .duo coclearia ad ova² ponderant .ij.s. iiij.d
 Item .duo coclearia ad species que ponderant iiij.s.
 Item .j. coclear deauratum ponderat .ij.s. ij.d.
Summa coclearium .Lxv. Summa precij eorundem .iiij.li. viij.s. vj d

Coopercula argentea in Camera dicti H. Prioris die et anno predictis

- Unum magnum cooperculum amplum argenteum in botelria quod
 ponderat .xx.s.
 Item .cooperculum .j. extra deauratum ad cuppam de murram³:
 ponderat .x.s.
 Item cooperculum tercium argenteum ponderat .xiiij.s. iiij.d.
Summa hujus .xliij.s. iiij.d.

- ⁴Item .j. arbor argentea cum quinque ramis et septem linguis
 serpentis precium .xl.s.⁵
 Summa. patet

Et Memorandum quod die et anno eleccionis dicti domini Ricardi Prioris ut superius continetur: Frater Willelmus de Coventria Sacrista recepit de fratre Thome Stoyl suppriori .x. annulos auri cum lapidibus preciosis quos dictus Thomas Stoyl recepit a dicto H. Prioris in vita sua per indenturam factam inter eosdem. quos quidem annulos dictus H. Prior recepit de Magistro. W. de Swanton executore testamenti domini R. archiepiscopi Cantuariensis in partem solucionis. M^l. marcarum quas Idem archiepiscopus conventui legavit. Precium autem dictorum .x. annulorum tale est.

- j. magnus anulus pontificalis cum topacio. precium .lx.s.
 Item .j. magnus rubinus rotundus. precium .C.s.
 Item alius rubinus quadrangularis. precium .iiij.li.
 Item tercius rubinus oblongus. precium .xx.s.
 Item quartus rubinus sculptus. precium .xx.s.
 Item .j. magnus saphirus oblongus. precium .xl.s.
 Item .alius saphirus minor rotundus. precium .xl.s.
 Item .tercius saphirus cum .iiij^{or}. Karolis in circumferencia ornatus
 parvis garnectis. precium .xxx.s.
 Item .quartus saphirus minor precium .x.s.
 Item .j. annulus cum perydot. precium .xx.s.

Et fuit unus undecimus anulus cum parvo rubyno quem dictus dominus H. Prior in vita sua dedit Petro Byne mercatori de societate Wardorum de Florentia. quem eciam dictus H. Prior. recepit in partem solucionem dictarum. M^l. marcarum.

¹ The "bottle-ry" or buttery.

² Egg spoons.

³ *Cuppa de murra*, a maser.

⁴ "Thesaurus" in margin.

⁵ One would like to know what this silver tree of five branches and seven serpent's tongues was for?

f. 4b] Dorsalia¹ et Tapeta² in Capella et Camera dicti H. Prioris die et anno predictis. In primis

Dorsale magnum rubenum cum albis leonibus.	j.
Dorsale rubeum cum albis rosis	j.
Tapeta longa cum sentis ad bancum aule	ij.
Item .Dorsale rubeum planum	j.

In Capella majori

Tapetum album cum rubeis rosis	j.
Item .tapetum cum sentis et crucibus.	j.
Item .tapetum rubeum	j.
Item .tapeta cum albis leonibus	ij.

In minori Capella

Tapetum novum cum scutis	j.
Tapetum vetus cum scutis	j.

In Camera Prioris

Tapeta rubea cum albis Rosis circa lectum	ij.
Tapeta rubea cum scutis operata	ij.
Tapeta alba cum griffonibus	ij.
Tapeta crocei coloris cum papejaÿs ³ non palleatis	ij.
Tapeta crocei coloris cum papejaÿs palleatis	ij.
[Tapeta crocei coloris cum rubeis rosis <i>altered into</i> albis rosis j , <i>but the whole entry afterwards struck through.</i>]	.
Item Tapetum crocei coloris cum rubeis rosis	j.
Item Tapetum viride cum albis rosis	j.
Item Tapetum de velveto	j.
Item Tapetum vetus cum scutis	j.
Item Tapeta rubea et plana	ij.

Summa Dorsalium et Tapetum in Capellis et in
Camera dicti domini H. Prioris. die et anno
predictis [xxvi] *altered into* xxxj.

Bankeria⁴ in Capella majori dicti domini H. Prioris

Bankeria in Capella majori viride cum albis rosis	ij.
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Bankeria in Camera ejusdem .H. Prioris. In primis

Bankeria rubea cum albis rosis unius secte	vj.
Item Bankerium crocei coloris cum papejaÿs	j.
Item Bankerium viride cum rosar ² et ramis cum papejayes in nodis	j.
Item Bankerium diversi coloris cum sentis diversis in nodis	j.
Item Bankerium viride largum cum diversis sentis	j.
Item Bankerium palleatum viridis et rubei cum diversis sentis	j.

¹ Dossers or hangings.

² Tapets or carpets.

³ Popinjays or parrots.

⁴ Bankers, or coverings for benches.

Item Bankerium stragulatum viridis rubei et albi coloris	j.
Item Bankerium stragulatum rubei et albi coloris	j.
Item Bankeria stragulata viridis rubei et crocei coloris vetera	ij
Summa bankeriorum in Capella et in Camera dicti H. Prioris. die et anno predictis	xvij

Lectisternia¹ in Camera dicti H. Prioris. In primis

lectisternium rubeum	j
Item lectisternium croceum	j
Item quilte album	j
Item lectisternium de Morre	j
Item lectisternium de panno qui dicitur Bourde ²	j
Item Chalones ³ unius forme	iiij

f. 5] Mappe⁴ et manutergia⁵ dicti domini H. Prioris. Invente in Garderoba. In primis

j magna mappa continens .xx. ulnas.	
Item alia mappa continens .xx. ulnas.	
Item [tercia mappa <i>altered into</i>] tres mappe sub uno contentu continentes .xviiij. ulnas	
Item quarta mappa continens .xvj. ulnas.	
Item .j. manutergium continens .xviiij. ulnas	
Item aliud manutergium continens .xiiij. ulnas	
Item duo manutergia sub uno contentu que continent .ix. ulnas	
Item duo alia manutergia que continent .viiij. ulnas sub uno contentu.	
Item .j. pulvinar de serico continens .j. ulnam ⁶	
Item aliud pulvinar continens dimidium ulne et dimidium quarterie	
Item .iiij paria linthiañ ⁷	

Vasa de Stagno⁸ et Cupro in Camera dicti domini H. Prioris

Olla de de [<i>sic</i>] Stagno ad vinum	j
Olle de stagno ad aquam	ij
Olle de cupro ad aquam	ij
Pelves magne de stagno	ij
Pelves minores de stagno cum amat	ij
Scutella de stagno	iiij
Pelvis ad Elemosinam de cupro	j
Olle nove longe de stagno ad vinum	ij.
Olle nove minores de stagno ad vinum et aquam	ij.
Pelves magne et large de cupro	ij.

¹ Quilts or coverlets.

² Striped cloth.

³ Counterpanes or coverlets.

⁴ Tablecloths.

⁵ Jack-towels.

⁶ A pillow of silk, apparently for the prior's bed.

⁷ Three pairs of sheets.

⁸ *Stagnum*, pewter or tin.

Lavatorium ¹ de cupro de forma galli	j.
Lavatorium de cupro de forma capitis hominis	j.
Item lavatoria rotunda cum coopereulis pendentia	.ij.
Item lavatoria parva in privata Camera	iii.j.
Pelves de cupro minores in dicta privata camera	iii.j.
Item .j. olla enea	

[Utensilia et Instrumenta dicti H. Prioris *struck through*.]

Quissini in Camera dicti domini H. Prioris anno predicto

Quissinus magnus de rubeo samitto	j.
Item quissinus magnus de rubeo samitto tuly	j.
Item quissinus magnus vetus de Bandekyno	.j.
Item quissini unius secte cum papejays de Bynde	ij.
Item quissinus frectatus magnus de coreo deaurato in magna capella	j.
Quissini de viridi serico	v.j.
Item quissinus magnus consutus de panno cum scutis	.ij. [<i>sic</i>]
Item quissinus magnus textus cum scutis	j.
Item quissinus rubeus cum leonibus croceis ²	j.
Item quissini crocei coloris cum papejays et rosis	.xi.j.
Item quissini quilibet cum .ij. papejays et ij albis rosis cum sento in medio	iii.j.
Item quissinus .j. cum quinque papejays et iiij ^{or} rosis rubeis.	

f. 5b] Utensilia et instrumenta dicti domini H. Prioris die et anno predictis

Ferrea rotunda ad nebulas ³	
Ferrea quadrata ad Wafres	j.
Mortaria enea ad species cum .ij. pestellis ⁴	ij.
Patella ⁵ ferrea quadrata ad carbonē	j.
Patella ferrea parva ad plumbum	j.
Furce ferree ad ignem ⁶	ii.j.
Securis magna pro bosco ⁷	j.
Hachetes minores unius forme	iii.j.
Hachettes et martelli minores	ij.
Sarpe ad vineas ⁸	ij.
Cultellus ad doland ⁹	j.
Martellus magnus ferreus pro bosco	j.
Wegges ¹⁰ ferree ad Idem	ij.

¹ The *Lavatoria* or lavers here mentioned were of two kinds: (1) jugs or flagons of copper, one in form of a cock, the other shaped like a man's head, for holding water; and (2) small cisterns, usually of lead or pewter, suspended or otherwise fixed over a stone bason or lavatory, with a tap from which water could be drawn or allowed to run over the hands.

² This red cushion with yellow lions practically bore the royal arms of England.

³ This was a pair of tongs with round plates at the ends for making gaufre-cakes.

⁴ Brass mortars with pestles for pounding spices.

⁵ *Patella*, a pan.

⁶ Fire-forks.

⁷ A woodman's axe.

⁸ Pruning hooks for vines.

⁹ A chopping knife.

¹⁰ Wedges.

Neytol ferr ⁹ ad idem	ij.
Driveles ¹ ferr ⁹	ij.
Signum ferreum ² magnum pro pullanis	j.
Signum ferreum minus ad animalia minora signanda	j.
Signum ferreum parvum ad vasa et utensilia	j.
Sica ³ ad ligna majora sine brachiis	iiij.
Sica ad ligna minora cum brachiis	ij.
Seca ad petram	ij.
Seca minor ad trussand ⁴	ij.
Seca manualia ⁵	iiij.
Schafhok ⁶	j.
Aunder ⁷ major	j.
Aunder minor	j.
Vange ⁸ ferree	iiij.
Turbul ⁹ ferrate	j.
Mattok bisacutus ¹⁰	j.
Howe ¹¹	j.
Pykoys ¹²	ij.
Item .duo instrumenta ferrea cum longis perticis pro herbis extrahendis ¹³	ij.

Equi in stabulo dicti. domini H. Prioris. In primis

j. equus qui dicitur MoreH ¹⁴	precium .xl. marc ⁹ .
Item alius equus qui dicitur moreH.	precium .xxv. marc ⁹ .
Item tercius equus soreH ¹⁵	precium .x.li.
Item quartus equus liard ¹⁶ pro Priore	precium .xxv. marc ⁹ .
Item .v ^{tus} equus qui dicitur Mokke	precium .x. marc ⁹ .
Item .vj. equus grisellus ¹⁷	precium .x.li.
dominus archiepiscopus habet et thesaurarius tenentur respondere de equo vel de precio	
Item .vij ^{us} equus Baiardus staloun ¹⁸	
Item .viij ^{us} equus Baiardus stalon	
Item .ix ^{us} equus Baiardus vetus palfridus	
Item .x. equus qui dicitur Stokfisseh ¹⁹	
Item .xj. equus qui dicitur Bausan. ²⁰ Capellanus domini archi- episcopi habet.	
Equi carectarum ²¹ .iiij ^{or} precium .viij.li.	
Jumenta ²² .vij. unde thesaurarius de Bourñ vendit ⁹ .j.	

¹ *Driveles*, dribbles or iron pins.

² *Signum ferreum*, a branding iron.

³ *Sica* = *seca*, a saw.

⁴ A trussing-saw.

⁵ Handsaws.

⁶ Probably a sheaf-hook.

⁷ Andirons.

⁸ *Vanga*, a shovel.

⁹ Perhaps the same as *tribulum*, a
flail.

¹⁰ A pickaxe sharpened at both ends.

¹¹ A hoe.

¹² Picks.

¹³ For an excellent contemporary

illustration of these instruments, the
weeding hook and crotch, in use, see
Vetusta Monumenta, vol. vi. pl. xxiii.
fig. 2. from the Louterell Psalter.

¹⁴ A morel horse is a black horse.

¹⁵ *Sorellus*, reddish brown.

¹⁶ *Liardus*, dapple-grey.

¹⁷ *Grisellus*, grey.

¹⁸ A stallion bayard or bay horse.

¹⁹ Truly a singular name for a horse

²⁰ *Bausan*, piebald.

²¹ Cart-horses.

²² *Jumentum*, a mare.

[Pal *erased*] Pullani¹ .ij. Madles² signati de etate .j. anni.
Item pullanus .j. femella³ istius anni

f. 6.] Vasa argentea cum alijs Ornamentis in Camera domini Ricardi Prioris inventa, videlicet die Translacionis beati Thome martyris Anno Domini Millesimo. CCC^{mo}. xxxiiij^{to}. tempore Fratris Rogeri de Thaneto tunc subcapellani.

Olle argentee ad vinum. In primis

Olla una nova perquisita tempore R. Prioris. ponderis [*blank*]
Item .alia olla nova ejusdem forme et ponderis perquisita tempore dicti R. Prioris.

⁴[Item .tercia olla magna domini H. Prioris ponderis .lx.s
Item .quarta olla ejusdem domini H. Prioris cum circulo in medio ponderis xliij.s. iiij.d⁵]⁶

Item .[quinta *struck through*] olla parva cum amaff in cooperculo ponderis .xliij.s. iiij.d⁵

Item .[sexta *struck through*] olla ejusdem forme et ponderis
Summa ollarum ad vinum : [v] *struck through and altered into*] iiij

Olle argentee ad aquam

[Olla una nova perquisita tempore domini R. Prioris ponderis]⁷

Item alia olla domini .H. Prioris ponderis—xxvj.s.⁵

Item [tercia *erased*] olla ejusdem domini H. Prioris. ponderis—xxiiij.s. iiij.d.⁵

[Item quarta olla .J. de Westone ponderis]⁶

[Item .quinta olla domini H. Prioris operata ponderis]⁶

⁸Item quarta [*altered into* terciā] olla⁸

Summa ollarum ad aquam [v *altered into*] iiij ⁸cum tribus gutteriis⁸

Cuppe argentee

[Cuppa una perquisita tempore R. Prioris cum amalloy in fundo de ymagine sancti Johannis Evangeliste cum tribus glandinibus in cooperculo deauratis ponderis]⁶ [Data domino G. le Scrope *added*]

Item alia cuppa domini .H. Prioris. magna cum amalloy in fundo | et tribus ramis in cooperculo deauratis ponderis

[Item terciā cuppa cum pede longo et operato cum milite in fundo equitante]⁶ ponderis [Data fuit domino .J. de Stonore *added*]

Item .[quarta]⁶ cuppa cum amalloy in fundo cum pede quadrato. ponderis .xxv.s.⁵

Item .[quinta]⁶ cuppa cum amalloy in fundo de ymagine beate Katerine. ponderis

¹ *Pullanus*, a foal.

² *Madle*, male.

³ *Femella*, female.

⁴ "In custodia domini Prioris" in margin.

⁵ These amounts are in a differently coloured ink.

⁶ *Struck through*.

⁷ *Struck through and "Data domino G: Scrope" added.*

⁸ ⁸ In a different hand,

Item .[vj^a]¹ cuppa cum amalloy in fundo cum pede rotundo.
ponderis .xxv.s.²

Item [vij^a]¹ Cuppa. que dicitur *belle*. et que fuit W. de Lydeby
Summa cupparum .[vij altered into] v.

Ciphi argentei cum pedibus

[Ciphus unus cum pede intus et extra deauratus et operatus
Thome Stoyl ponderis]¹ [Prior habet *added*]

[Item ciphus alius de cristalloy [J de borgan habet *written over*]
cum pede amallato qui dicitur *desiderium* et idem pes
deservit ad quendam ciphum parvum de murra cum cooper-
culo argenteo et deaurato]¹ [Prior habet *added*]

Ciphi argentei sine pedibus

Ciphi Fratris Walteri de Norwyco .vj. unius forme cum numero
signati

Item .ciphi Fratris Ricardi de Clyve .iiij. unius forme | quorum
unus ponderat .xiiij.s. vj.d. alius .xiiij.s. et tercius .xij.s. vij.d

Item .ciphi Johannis de Gore .iiij. unius forme | quorum unus
ponderat .xviij.s. alius .xviij.s. et tercius .xv.s.

Item .ciphi³ Johannis de Welles [.ij. unius forme | quorum
unus]⁴ ponderat xiiij.s. x.d. [et alius .xiiij.s. ix.d]¹ [Prior
added]

Item ciphus unus Nicholai de Sandwico ponderis .xviij.s.

Item .ciphus unus Petri de Icham ponderis .xiiij.s. iiij.d.

Item .ciphus S. de sancto Paulo .ij. quorum unus intus deauratus
et extra operatus cum amalloy in fundo de diversis bestiis
ponderis .xxiiij.s. viij.d. et alius cum amalloy in fundo de
assumpcione beate Marie virginis ponderis .xx.s. iiij.d.

Item ciphus unus Alexandri de Sandwico cum amalloy in fundo de
passione beati Thome martyris ponderis .xx.s.

Item ciphus unus Roberti Poucyn cum amalloy in fundo de diversis
gallis. ponderis .xviij.s. viij.d.

Item ciphi Roberti de Elham .ij. unius forme | quorum unus
ponderat .xiiij.s. iiij.d. et alius .xj.s. viij.d.

[Item ciphus. Nicholai de Ivynghe. ponderis .xj.s. vj.d]⁵

Item ciphi Thome de Greneweie .ij. quorum unus est cum
ystrione amallato | et ponderis .xx.s. et alius sine amalloy
ponderis .xv.s.

[Item ciphi S. de Pessinggis .ij. quorum unus ponderis .xviij.s.
et alius .viij.s. de ponderis xviij.s. Thomas de Garwenton
habet]⁵

Summa ciphorum sine pedibus [xxviij *struck through and altered*
to] xxv.

¹ Struck through.

² These amounts are in a differently
coloured ink.

³ Altered to *ciphus*.

⁴ Struck through and *unus* written
above but afterwards struck out.

⁵ Interpolated by the same scribe.

Nuces¹

Nux una Nicholai de Bourne cum pede et cooperculo argent² et amallat².

Item alia Nux Thome Stoyl cum pede amallato et operato. cum cooperculo argenteo et deaurato

[*Added by the same scribe in paler ink:*

Item .iiij^a Nux. Hugonis de Sancta Margareta cum cooperculo deaurato

Item Nux .iiij^a. recepta de Thesaurariis(?) viz. R. de Thaneto et W. Chetham cum cooperculo argenteo et glandibus deauratis]

Summa Nucium [ij altered into] iiij.

f. 6b]

Ciphi de murra² cum pedibus

Ciphus unus domini H. Prioris de murra cum pede argenteo et deaurato et cum cooperculo argenteo et deaurato.

Item .ciphus alius domini .R. Prioris cum castone | et circulo argenteis et deauratis cum pede argenteo et operato. pes est in refectorio [Prior habet added]

Item .ciphus unus parvus Willelmi de Thrulegh cum cooperculo argenteo [Prior habet added]

Summa ciphorum de murra cum pedibus .[iiij. altered to] ij.

Ciphi de Murra sine pedibus

Ciphus unus novus Thome Stoyl magnus cum castone³ argenteo deaurato et operato.

Item ciphus alius cum fundo argenteo deaurato et operato cum agno | et .iiij. Evangelistis

Item .ciphus tercius cum [castone et]⁴ circulo argent² | et deaurat² cum manu amallata in fundo

Item .iiij^{us}. ciphus cum castone et circulo | et scuto argenteo.

Item .quintus ciphus cum [castone et circulo argent² et]⁴ rosa in fundo argentea.

Item .vj. ciphus .R. de Holyngbourn cum castone et circulo argent².

[Item .vij. ciphus ejusdem .R. de Murra plana ⁵cum circulo deaurato⁵]⁴

Item .viij. ciphus cum circulo argenteo [et ramis in fundo]⁴ et .iiij^{bus} splintis.

Item .ix^{us}. ciphus cum circulo argenteo | et manu argentea in fundo ⁵deaurata⁵

¹ Nuts, i.e., cups formed out of cocoanuts.

² *Ciphi de murra*, masers, i.e., bowls of spotted maple wood. They usually had bands of silver-gilt round the edge to protect them and give increased depth, and a medallion or print in the bottom. Sometimes they were mounted

on a foot, and were then called standing masers. Occasionally, too, they had covers. See *Archæologia*, l. 129-193.

³ *casto*, Fr. *chaton*, the print or socket for an enamelled plate in the bottom of a maser.

⁴ Struck through.

⁵—⁵ Added by same scribe.

Item ciphus .x. qui quondam fuit domini .R. archiepiscopi cum circulo argenteo et deaurato | et diversis splintis.

Item .iij. ciphi veteres | et fracti

¹Item .ciphus .R. de Rawe magnus

Item .ciphus .S. de Soles cum eastone et circulo in fundo et leone deaurato¹

Summa ciphorum de murra sine pedibus [xx altered into xiiij then into xiiij and finally into] xv.

[Item .cooperculum unum domini .H. Prioris. magnum argenteum ponderis .xx.s.

Summa patet]²

Coclearia argentea in boteleria

Coclearia inventa in Boteleria xv.

Item .coclearia domini .H. Prioris xij.

Item .coclearia .R. de Elham xij.

Item .coclearia ad species ij

Summa coclearium xlj.

Pelves argenteæ ad aquam

Pelves perquisite tempore .R. Prioris .ij. cum ymaginibus . . . Prioris amallatis in fundo. ponderis.

Item .pelves perquisite tempore ejusdem .R. Prioris .ij. cum armis Regis Anglie deauratis in fundo. ponderis.

Item .Pelves domini .H. Prioris .ij. cum mitris deauratis in fundo. ponderis.

[Item .pelves ejusdem domini .H. ij. cum rosis deauratis in fundo. ponderis.

Item .Pelves veteres³ | et in parte fracte cum ymaginibus Prioris deauratis in fundo. ponderis.]²

Summa Pelvium ad aquam .[x. altered into] vj

Pelves argenteæ ad species⁴

Pelvis .j. ad modum rose operata. | cum pede ponderis .l.s.

Item .ij. pelves cum regibus in fundo | et diversis ymaginibus deauratis ponderis .lxiiij.s. iiij.d.

Item .pelvis .j. Thome Stoÿl cum pede et amalo in fundo ponderis.—

Summa pelvium ad species .iiij.

Salaria argentea

Salarium unum magnum cum pede | et cooperculo. precium .xxx.s.

Item .aliud Salarium rotundum cum cooperculo precium .xx.s.

Item .Salarium tercium rotundum parvum cum cooperculo precium .[x.s. altered into] xvj.s. viij.d.

Summa Salarium argenteorum .iiij

¹—¹ Added by same scribe.

² Struck through.

³ There were two, but the number is not given.

⁴ Spice-plates.

f. 7]

Scutelli magni argentei

Scutellus unus magnus argentens ad Elemosinam domini. Prioris.
cum signo x^l. in fundo deaurato ponderis .x.℥i.

Summa patet

Scutelli argentei qui dicuntur *Charjours*

Scutelli unius forme magni qui dicuntur *Charjours* .x. ponderis
.xviij.℥i. xv.s.

Summa patet

Scutelli minores

Item .Scutelli minores.—[lvj altered into] lvij—ponderis.

Summa patet

Item Scutelli rotundi—iiij. ponderis

Summa patet

Summa omnium Scutellorum cum Scutello ad Elemosinam .[lxxj
altered into] lxxjjj.

Salsaria argentea

Item Salsaria magna argentea [que dicuntur *struck through*] ad
charjours .xviij

Item Salsaria minora [lj altered to] xlvj

Summa omnium Salsarium .[lxxj altered into] lxxjjj

Et memorandum quod die sancti Jacobi apostoli. Anno Domini Millesimo. CCC^{mo}. Tricesimo tercio. tempore Fratris Rogeri de Thaneto tunc subcapellani Inventa fuerunt in camera domini Prioris vasa argentea subscripta. viz. Olle ad vinum .v. Inde per preceptum domini .R. Prioris liberata fuit una olla debilis et fracta Thome le Maij. ex causa inferius notata.

Item .Inventi fuerunt cippi argentei sine pedibus .xxij. Inde liberati fuerunt prefato Thome le Maij. duo. cippi. qui quondam fuerunt Thome de Middleton fracti | cum amallo in fundo de armis quinque Portuum¹ ex causa inferius annotata.

Item .Inventi fuerunt Scutelli minores .lvij. Inde liberati predicto Thome .iiij. fracti ex causa inferius notata.

Item .Inventi fuerunt scutelli rotundi .vj. Inde liberati predicto Thome le Maij .j. fractus. ex causa inferius annotata.

Item .Inventa fuerunt salsaria argentea .lix. minora. Inde liberata prefato Thome le Maij .vij. fracta. ex causa inferius annotata

Item .Inventa fuerunt coclearia argentea .xx. Inde liberata predicto Thome .v. fracta. ex causa inferius annotata.

Et memorandum quod dictus Thomas le Maij. pro vasis prescriptis ut predicatur sibi liberatis. liberavit predicto domino .R. Prioris. duas pelves argenteas cum amall in fundo. Item .ij. ollas argenteas ad

¹ The arms of the Cinque Ports were England dimidiating *azure three hulls of ships or*. One of the earliest examples

of them is on the Dover seal of 1305. *Archæological Journal*, lii. 175.

vinum. Item .j. ollam argenteam ad aquam. que pelves et olle prescribuntur esse perquisite tempore ejusdem .R. Prioris

Item Et memorandum quod de dictis .lvij. scutellis minoribus liberati fuerunt Stephano et Roberto Thesaurarijs .iiij. scutelli fracti ex causa inferius annotata.

Item de predictis sex scutellis rotundis liberatus fuit predictis Thesaurarijs .j. fractus. ex causa inferius notata.

Item. de predictis .lix. salsarijs liberatum fuerunt [*sic*] predictis Thesaurarijs .j. fractum ex causa que patet inferius.

Et memorandum quod pro istis vasis argenteis ut predicatur prefatis Thesaurarijs liberatis receperunt ijdem Thesaurarij a quodam aurifabro .iiij. cuppas argenteas et due istarum cupparum date sunt amicis ecclesie | et .iiij^a remanet penes dominum .R. Priorem.

Item .memorandum. quod die Translacionis beati Thome martyris. Anno Domini. Millesimo. CCC^{mo}. xxxiiij^{to} deberent esse secundum Thesaurarios in Camera domini. Prioris. vasa argentea subscripta. viz. Scutelli minores .lxvj. sed non fuerunt tot die et anno predictis inventi quia ut patet superius liberati fuerunt Thome le Maij et Thesaurarijs .viiij. et furabatur tempore fratris .J. de [fol. 7b] Coleshulle tunc subcapellani domini .R. Prioris .iiij. et remanent lvj. ut patet supra.

Item deberent esse die et anno predictis secundum Thesaurarios salsaria pro dicta Camera .lxij. sed non fuerunt tot inventa die et anno predictis | quia ut patet superius liberata fuerunt prefatis Thesaurarijs et Thome le Maij .viiij. et furabatur .j. tempore fratris .R. Hadebrand tunc subcapellani domini .R. Prioris supradicti. et remanent .lj. ut patet supra.

Item .deberent esse in camera predicta cippi argentei sine pedibus .xxvj. et non fuerunt tot inventi die et anno predictis quia ut patet superius liberati fuerunt dicto Thome le Maij .iiij. et remanent .xxiiij.

Item .deberent esse in dicta Camera secundum Thesaurarios scutelli rotundi .vj. sed non fuerunt tot inventi die et anno predictis quia ut patet superius liberati fuerunt prefatis Thesaurarijs et Thome le Maij .iiij. et remanent .iiij.

Item .deberent esse secundum Thesaurarios die et anno predictis .xlvj. coclearia sed non fuerunt tot inventa quia ut patet superius liberata fuerunt predicti Thome le Maij .v. et remanent .xlj.

Item deberent esse dictis die et [*loco erased*] anno in prefata camera secundum Thesaurarios .v. pelves ad species. sed non fuerunt tot invente quia liberata fuit predicto Thome le Maij. una ut patet supra et remanent .iiij^{or}.

Dorsalia | Tapeta | Bankaria | et quissini in Camera domini
.R. Prioris Inventi die et anno supradictis. In Primis

Dorsale magnum rubeum cum albis ^fleonibus .j.

Item dorsale rubeum cum [*magn erased*] albis rosis .j.

Item dorsale parvum crocei coloris cum vespertilionibus .j.

Item dorsale rubeum planum et debile .j.

Summa dorsalium .iiij.

- Tapeta Tapeta rubea cum albis rosis .iij.
 Item .tapeta rubea cum diversis scutis .iij.
 Item .tapeta alba cum griffonibus et aquilis .ij.
 Item .tapetum album cum duobus angelis .j.
 Item .tapeta crocei coloris cum papegeys .ij.
 Item .tapeta palleata crocei coloris cum papegeys et rubei coloris cum albis rosis .ij.
 Item .tapeta viridia vetera et debilia [*sic*] cum diversis scutis .ij. ad scamnum magne Camere
 Item .tapetum viride cum albis rosis .j.
 Item .tapetum crocei coloris cum rubeis rosis .j.
 Item .tapetum viride novum. cum diversis scutis .j.
 Item .tapeta viridia et valde debilia cum diversis scutis .ij.
 Item .tapeta rubea plana debilia .iij. [Ricardus Aleyn habet .j. et . . . fecit pro *added*]
 Item .tapeta crocei coloris .iij. quorum unum est cum rosis de nigro sindone
 Item .tapetum de velvetto .j.
 Item .tapetum planum de bluetto .j. [quod Bonyngton habet *added*]
Summa tapetorum in Camera domini. Prioris .xxvij

- Bankaria Bankaria rubea cum albis rosis .vj
 Item .bankarium novum de taune cum cervo | canibus | et cuniculis | ac arboribus .j.
 Item .bankarium novum diversi coloris cum diversis bestiis et rosis in nodis .j.
 Item .bankaria nova diversi coloris cum diversis bestiis in tabernaculis .ij.
 Item .Bankarium novum. crocei coloris cum leonibus | et floribus gladiis infrectis .j.
 Item Bankaria alba cum rosis albis in margine .ij
¹Item Bankarium diversi coloris cum castellis | aquilis. et diversis scutis .j.
 Item bankarium crocei coloris cum papegeis | et rubeis rosis .j.
 Item bankarium diversi coloris cum diversis scutis in nodis .j.
 Item bankarium viride cum rosariis Cranis et Papegeys in nodis .j.
²Item bankare palliatum crocei et viridis coloris cum albis aquilis .j.
 Item bankar² palliatum viridis et rubei coloris cum diversis scutis .j.
 [Item bankarium crocei coloris cum nigris Bestiis cum alis viridis et albi coloris *added*]
 f. 8] Item Bankarium stragulatatum viridis | rubei | et albi coloris .j.
 Item bankarium stragulatatum rubei et albi coloris .j.
 Item Bankar² viride largum et vetus cum diversis scutis .j.
Summa bankariorum .xxij.

¹ "Servient² regis hungarie (?)" in margin.

² "Jacobus Bonyngton habet" in margin.

8b] Bona Inventa in Camera domini Roberti Prioris. viz die Jovis proxima post festum [Sanctorum] Petri et Pauli anno Domini Millesimo. CCC^{mo}. xxxix^o. tradita Ricardo Pe[] Camerario salvo custodienda

In primis unum quilte album cum duobus tapetis albis cum Griffonibus.

Item unum tapetum album cum duobus angelis.

Item .unum lectisternium crocei coloris. cum .iij^{bus} tapetis ejusdem secte

Item .aliud lectisternium de ynde cum uno tapete ejusdem secte

Item .lectisternium rubeum cum .iij^{bus} tapetis rubeis cum rosis albis

Item .lectisternium vetus de ffrysonii crocei coloris

Item .lectisternium vetus de [murr]ey

Item .unum Chaloun de rosis [cum] bordura de floribus gla . . .

Item .aliud chaloun de rosis cum tabernaculis in bordure

l[tem pa]ria pulvinarum

Item duo Materac¹ et una Curtina

Item Dorsale rubeum cum albis rosis

Item dorsale aliud rubeum cum albis leonibus

Item dorsale terciū rubeum cum diversis scutis

Item dorsale quartum parvum crocei coloris cum vispilionibus²

Item tapetum unum crocei coloris cum rubeis rosis

Item tapetum aliud viridis coloris cum diversis scutis

Item tapetum parvum planum de viridi colore

Item duo tapeta palliata crocei coloris cum Papegyes [et rubei] coloris cum albis rosis

Item .vj. bankaria rubea cum albis rosis

Item .duo bankaria cum diversis bestiis in tabernaculis

Item .duo bankaria diversi coloris cum diversis bestiis in Nodis

Item .Bankar² novum de Taune cum cervo canibus et coniculis et ar[boribus].

Item bankar² diversi coloris cum diversis scutis in nodis

Item bankarium viride cum rosarijs

Item bankar² crocei coloris cum aquilis

Item bankar² crocei coloris cum leonibus et floribus gladue infrectis.

Item .duo bankaria alba cum rosis albis in marginibus

Item .bankar² viride largum et vetus cum diversis scutis.

Item .bankarium palliatum vetus

Item .duo manutergia

Item .quissini magni cooperti cum rubeo samitto .iij.

Item .quissinus magnus quartus coopertus cum panno aurino.

Item .vj. alij quissini parvi cooperti ex una parte cum panno aurino

Item .quissini crocei coloris cum Papegeys .vij.

¹ Mattresses.

² Sic for *vespertilionibus*, i.e. butterflies.

THE REPOPULARISATION OF HISTORY, BEING THE
OPENING ADDRESS OF THE HISTORICAL SECTION
AT CANTERBURY.¹

By PROFESSOR E. C. CLARK, LL.D., F.S.A.

For the very short address which I propose to give on opening the Historical Section, it seems that to a person in my position, as to greater men, three courses are open: he may furnish you with some historical information of a local character bearing on the particular objects of the meeting; he may inflict upon you a first draught of some historical subject to which he himself has paid special attention; or he may confine himself to some remarks which a more general—I am afraid I must say a less serious—study of history has suggested to him. As to the first—if I had the local knowledge I should scarcely have ventured to air it in the proximity of so eminent an authority as the Most Rev. Primate, who was to have honoured us by presiding over a Canterbury meeting, not to mention such Ciceroni as Messrs. Hope and Fox. As to the second—if I had a special historical subject, I should hesitate to put the patience of my friends a second time to a test which they endured with such good nature at Cambridge. So I fall back upon the third course—that of making a few remarks upon the present study of history in general. I cannot speak as a historian—not even as what in our elegant modern phrase is called a “researcher” in history—only as an amateur, but an amateur who cares really more for history than for any other subject. There is some use, occasionally, in an address by an amateur. He is, of course, fair game for the better informed: he is sure to expose his own ignorance; but, after all, he can speak, in a way that the professional cannot, to and for ordinary persons—persons with whom the particular subject, in this case history, cannot be the pursuit of their lives, but yet who may be very truly interested in it, who might derive a great deal of valuable education from it, and who are

¹ Read at Canterbury July 23rd, 1896.

really grateful for such helps to the study as are within their capacity and opportunities. And though I am speaking as a non-historian, I mean to borrow my text from one or two very significant suggestions about the results of over-specialisation from a real historian's address—that of Dr. Hodgkin, delivered at our Edinburgh meeting. I take a little more hopeful view than he took, and style my address the “*Repopularisation of History*.”

To omit what some one has called, speaking on another subject, the “usual panegyric” on historical study, I would yet dwell for a moment on one or two points which, to my mind, specially recommend that study for the present time. It is a time, as it seems to me, of impulse rather than judgment: of great devotion to material pleasure, with alternations of, may I venture to say, somewhat fantastic altruism: a time when the scientific doctrine of evolution has set our most fundamental ideas quivering: a time when political power has passed into the hands of those who cannot but be comparatively ill-informed. History is not, nor is anything else, a panacea for these ailments: but history at any rate furnishes a purely intellectual pleasure which appeals to a very wide circle of minds: it is essential for the accurate tracing out of our human development, whether in art, in literature, in religion, or in science itself: and it is of inestimable value as a corrective to the superficial conclusions and the interested statements which tend to form the staple of politics based merely on the present.

Among the commonplaces with which I am afraid I am regaling you, there is one other, which I will cut very short—I mean the fact that *our* subject, Archæology, has become a *science*—a science closely connected with, directly ancillary to, History, and that History has, greatly through this help, received within the last twenty or thirty years a development quite out of proportion to its previous bulk and growth. I need only refer to the practically new study of palæography, to the increasing discovery of ancient records, to the wide publication of such records as well as of the more modern ones, and to the growing solidarity of historical research among *savants* of every civilised country.

Amidst all this life and growth, I wonder if the result has been quite satisfactory for my brothers and sisters whom I venture to generalise as the "ordinary person." Does he know more than his ancestors knew, of a subject so interesting, so valuable, so almost indispensable? Is he, on the contrary, or was he till very recently, in danger of being repelled by a voluminousness intractable to any but a specialist, disposed to drop the whole subject in despair, or, to content himself with the kaleidoscopic omniscience of polite society, satisfied, if he can scamper through the articles or reviews of to-day, to forget all about them to-morrow?

No, there have always been, amongst *our* class, lovers of history *not* content with this kind of knowledge; but they have often been driven, by necessity, to a very partial study of their subject—to the study of what are prettily called "cameos," or to the examiner's favourite field of *special epochs*.

I have not a word to say against either of these, as far as they go. The "cameo" has brightness and interest, with the merit of recognising the importance of great personalities, which some modern historians ignore too much, in their desire to resolve everything into tendencies and movements and "*zeit-geist*." Again, a detailed study of some one *epoch* is, I believe, essential for acquiring the power to estimate the conclusions of other people, in cases where we cannot ourselves go into detail. But yet—one visit to a Museum, whether of archaeology or of arts or crafts; one of our own weeks of varied inspection; one perusal of such writing as Macaulay's Essays, will shew us that we cannot isolate the phenomena of history. With all allowance made for local separation and for the initiative of great men, each event is, in some sort, the result of all that have gone before: we inevitably find that, concentrate our gaze as we will on a definite spot, we shall still need some general view of the whole field. As to the history of our own country I think this truth would always have been admitted: but that it has a wider application still may be seen more clearly in these days of foreign travel for all who can command any leisure, of cosmopolitan communication of ideas, of mutual comparison and improvement amongst national institutions.

Even the "ordinary person," then, who cares about the subject at all, does want some general outline, at least of European history and that of outside nations most connected with Europe. And I think he got such a general outline in older times, more than in recent. I do not attribute this merely to the undoubted fact, that what are called Standard books were more read, in days when there was less periodical literature. But I know there *were* just readable authorities, which would at least give some idea of the contemporaneity or the sequence of events—so that one would not put down the earlier as a result of the later, or attribute some definite reform to a man whose great-grandson might perhaps just see the beginning of it. Now I am not going to expose myself to the pitying contempt of the well informed by naming the sort of books which have sometimes saved *me* from such blunders: but I venture to mention two failings which have struck me as occasionally incapacitating our great works of modern research from giving the particular help required—apart from mere bulk. I will call these failings—as there is nothing like a strained metaphor for arresting attention—Indigestion of matter and Superiority of manner.

Accumulation of materials is the glory of this "researching" age. From the domestic accounts of a Pharaoh, or the minute books of a great Ecclesiastical Corporation, such as those on which Mr. Cross is about to address you, down to the parish register of Little Pedlington, few documents escape the modern investigator, who feels that "*this* ought to be in print," or the painstaking writer on history who holds, much to his credit, that nothing of human interest is beneath its dignity. But such writers do sometimes appear to forget that the business of a true historian is not merely to shoot down a lot of nuts for his readers to crack, but to extract the kernel for them himself—literally to *enucleate*, as Justinian said about the chaos of old law which came down to *him*. References, quotations in full, are thankfully received, or rather justly expected: but surely the reader may also expect some power of compression, some drawing of conclusions! And if the writer thinks, as he may, that conflicting views are too equally balanced for *him* to give

a resulting opinion, he can at least give a full table of contents and an index, both of which should be made by himself. Modern literature is immensely in advance of ancient, or rather perhaps of semi-modern, in these respects. A writer on history now generally performs the one-half of his duty—gives us the contents if no index, the index if no contents. Still, the protest is sometimes necessary. As to the man who omits both, he ought to be hanged without benefit of clergy, or bear whatever reviewing comes nearest that penalty.

As to “superiority,” I admit that we do not often hear now of matter being beneath the dignity of history, and I ought not to spend much time upon faults of tone or sentiment. Still, I wish that modern historians would not sometimes act as if they had been bitten by a bad sort of young reviewer. Why is the last bit of information that has turned up, especially if “made in Germany,” to be treated as if it had entirely thrown into the shade all that was known before? Why must some popular view, about which it is still not *too* certain that it is not right, be referred to as “the long exploded fallacy”? Why is some favourite old illustration to be sneered out of notice as “the hackneyed quotation from Noodle”? These faults, which *do* rather mark a certain school, not only make the reader lose his temper, but depreciate the value of their author’s real contributions to his subject far more than he succeeds in depreciating his predecessors. But pray do not let me be understood as predicating this disagreeable peculiarity broadcast of the modern historian. The other day a high authority, treating of rather a well-known subject, to whom I hazarded the suggestion that he had no doubt some perfectly new documents in hand, replied, “No; I have only what have been in the hands of the public for some time—I find them quite enough.” And I read with pleasure the following praise, given in a very recent review, to a writer on a semi-historical subject. Mr. ———— dares to be *quite elementary*, and that is one of his chief merits.” I do not mean to say that such modesty and simplicity are rare among modern historians: only that they are very pleasant when one meets with them.

May I also enter here some timid plea for what is so

frequently decried as "fine writing," and for those touches of brightness and colour which are held up to scorn as "purple passages"? When I hear a critic inveighing against "fine writing" I of course conclude that he has been well advised in abstaining from that class of literature himself: but I also fear that he may sometimes succeed in deterring others from work which we, of the generality, would not willingly lose. The most Puritan of us have long come to the conclusion that a church is not necessarily the better for closely resembling a barn, nor need a theatre be exactly modelled upon a gas-holder. Then do not let us discourage, or allow to be discouraged, the occasional touches of enthusiasm and gleams of poetry in which a generous writer will warm to the subject that he loves. Let us be as judicial as impartial as we can: but we do not lose those qualities, because we can still delight in the majestic periods of Macaulay's History or the glowing picture of Stanley's Memorials.

But, after all, *bulk* is the great obstacle to a general knowledge of history, as brought up to date, being widely diffused. And here I hope and believe that our present outlook justifies me in the title which I have chosen for these remarks—the *re-popularisation* of History.

It is a little over twenty years since a series of short histories—for *schools* in the first instance, but calculated to be useful for other readers as well—was projected by one of the best and soundest teachers of History we have ever had—the late Professor Freeman—and inaugurated by him with an admirable general sketch. This has been followed, some ten years ago, by a series of rather fuller histories—the "Story of the Nations"—which seem to me very nearly to supply the requirements of the ordinary student of history: and the series has been supplemented by the "Heroes of the Nations"—works more in the nature of what have been called "Cameos," but in many cases so widely treated as to constitute the continuous history of a whole important period.

These books, being from different hands, are, of course, of very various degrees of merit. One of the best of the "Stories" is the work—unfortunately the last work—of the great historian whom I have just named. One of the

best of the "Heroes" is by an eminent writer still, I am glad to say, among us, who has grouped round Theodoric just what we most want to know of Italy and her invaders during one of the most eventful centuries in the history of the world.

These books vary much, as I have said, in excellence: their utility might I think, in many cases, be increased by the addition of tabulated chronologies; but they have most of them these good points: They are written simply and readably; they contain results, generally of the latest investigations, in a definite form; they are illustrated by good maps and by artistic contributions from archæology which give just the touch of human life and reality that histories so often want. Finally, some of the most valuable of them are written by men who have compiled larger books, of more detailed reference, on the same subject, and have thoroughly worked over all the available authorities, but have not thought it beneath them to compress their work for the popular use of those who cannot essay the longer study. There is great truth in what Freeman said of his own shorter history of Sicily, that in order to write a small history you must first write a large one. In looking forward to the future of historical study among the class to which I address myself, I would rather put a converse sentiment; and hope that all the writers of our good large histories may be induced to write short ones also. They could not do a more useful work, nor one, I believe, which would conduce more both to their own repute and interest.

Let me conclude by instancing a most admirable specimen of a short but complete history by a well-known writer of larger works on the same subject—Gardener's *Student's History of England*. Whether one agrees with the author's political views or not, I certainly think that the events of our history are put more clearly and succinctly; that the vast subject is made into a more interesting and digestible whole for the ordinary student; that our national life, character, and art are better illustrated by trustworthy engravings than has ever been done before. The services rendered in the last department, by our friend Mr. Hope's direction, well deserve an independent notice of honour. Perhaps some future edition

may add, from the publications of the Chaucer Society, some contemporary portraits of that brilliant bit of fourteenth century life—the group of Canterbury pilgrims—to which Mr. Gardener refers, and which Dean Stanley describes. At present you have to see them in Stoddart's excellent but not quite authentic portraiture—the Knight, the Franklein, the wife of Bath, and the rest. May I add, for the mind's eye, a brief finish drawn from the last “tales” themselves? The “Coke” has recovered, we hope, from that lick with the rough side of the Manciple's tongue, assisted by what I am afraid I must term a hair of the dog that bit him. The company have composed themselves under the discourse—prepared, Professor Skeat thinks, for some other occasion—of that excellent “poore Person,” against whose merits it can only be said that he is perhaps a little *long*—like others who have not his excuse. However, here I end, with a last testimony to the wisdom of incorporating *all* matters of human life and interest in this genuinely popular style of history which I have been commending. If such books as Mr. Gardener's continue to be written, I do not think we need fear that over-specialisation against which Dr. Hodgkin warned us five years ago, and against which a worthy antidote has also been supplied in the shorter works of Dr. Hodgkin himself.

SOMETHING ABOUT SAXON CHURCH BUILDING.¹

By J. T. MICKLETHWAITE, F.S.A.*

In accepting the term *Saxon* for the English architecture before the coming of the Normans, I am no more concerned to defend its propriety than I am that of the cognate term *Gothic* for the architecture of the next succeeding time. It is enough for each of them that it is convenient and generally understood.

The antiquaries of the last century were content to class together all mediæval architecture earlier than the appearance of the pointed arch as Saxon, and, I think, Thomas Rickman was the first who tried to distinguish that which really is so from that of later date. In a letter communicated to the Society of Antiquaries in 1834, and printed in the 26th volume of *Archæologia*, he gave a list of twenty buildings from different parts of England which he claimed to be Saxon, and he described certain details which he considered to be characteristic of that period. So far as he went he was quite right, and later writers have done little more than add to the number of known examples. Mr. E. A. Freeman and a few others have contended that some of the buildings which shew Rickman's *criteria* of Saxon date are not so early,² but his position has not been shaken, and the long-and-short work, the turned baluster, the "triangular" arch, and the rest, are now admitted to be indications of a date earlier than the Norman Conquest.

We have scarcely got further than that. We have had some excellent descriptive accounts of various buildings, but, when it comes to fixing the date of one, we find little but guess-work. From Ethelbert of Kent to Edward

¹ Read at Canterbury, July 24, 1896.

² It has been argued that there must have been some overlapping of styles, and that some buildings in appearance Saxon must be contemporary with some others in appearance Norman. This is true, but the overlapping took place before 1066. We must not be deceived

by the architectural use of the word *Norman*, which is only conventional. The Confessor's church at Westminster, completed all but the nave before his death, was a purely "Norman" building, and there may be others as early which for lack of written evidence we are not able to distinguish.

the Confessor is four centuries and a-half, and the church in Dover Castle has been dated beyond each end of them. All through the Gothic period architecture was continually changing, each phase being developed out of that before it, so that the work dates itself. But we have not discovered evidence of any such growth in the earlier time. Changes of fashion no doubt there were, and perhaps we may gain sufficient knowledge of them to help us with the dating, but—except that we may safely attribute to the end of the period those examples in which the detail approximates to that of the Early Norman work—we have not learned the lesson yet.

The difficulty is much that which the future antiquary will find in giving dates to the dull “Palladian” buildings which for two or three centuries have been growing up in most countries of the world. They are not all exactly alike, and some are less stupidly bad than others; but as there is no life in them there is no speech, and they can not tell us anything.

So it was here in Saxon times. The architecture, if it may be called architecture—was a debased imitation of the Italian architecture of the time, which was itself in a very degraded state. The method of building was traditional from Roman times, and there were ruins of Roman buildings in the country which no doubt supplied architectural ideas as well as material for the new churches. In some cases we find better work than in others, and some of the best is amongst that which we have reason to think the oldest. The tendency till the eleventh century seems to have been downwards, but we can not say that it was uniformly so, and that a bad piece of work is necessarily later than a better.

It has seemed to me possible that the ground plans may give us more certain information than the architectural detail and the construction do. The study of the plans has hitherto been neglected, and the purpose of my present paper is rather to introduce it than to go very far with it. And any attempt at classification or dating which I now make must be taken as being subject to modification as our knowledge increases.

The first difficulty is to get at the plans. The youngest of the buildings we are concerned with have been subject

to the changes and chances of eight centuries, whilst the oldest go back thirteen. Some few of the simplest buildings keep their plans even now; but most have been so altered, enlarged, demolished, and built over, that it is only by careful seeking out and piecing together of evidence that we can make out what their original forms were. In most of the plans prepared for this paper what actually remains is shewn black, what is restored on more or less certain evidence is scored, and conjectural restoration either omitted or shewn in outline. Where for any reason this is not kept to, the fact is stated.¹

It is not to be doubted that many churches still in use occupy sites already so consecrated by the Christian Britons before the coming of the English. In the west, and in inaccessible places, which were not occupied until the English had themselves accepted Christianity, the use of the churches would continue without break. And in places whence Christianity had been driven, it was the custom of the missionaries who brought it back to seek out the sites of the old churches and occupy them again when they could. So we find St. Austin did at Canterbury, and somewhere beneath the widespread vaults of the quasi-patriarchal church of his successor is the site and perhaps even the foundation of that church *Romanorum fidelium* in which he set his chair.

Of these Romano-British churches the only certain remain is, I think, that found in 1892 at Silchester. A claim is put in for the nave of St. Martin's Canterbury, but, in spite of all that has been said about it, I have not been convinced that any part of the existing fabric is of the Roman time. I do not dispute that Austin found a church there, but I think nothing that is left can go further back than the coming of Queen Bertha and her Christian family, who were using it when he came. Even so it may claim to be the oldest of English churches—not merely by survival, but in fact.

Austin's Cathedral, much altered and, I think, enlarged, stood till the great fire of 1067. Edmer's account has preserved to us the description of it as it was then, and

¹ All the plans of churches are figured to a uniform scale of 32 feet to the inch; the elevation and section are to 16 feet

to the inch, and the plans of crypts to 8 feet to the inch.

Professor Willis's¹ comment is so well known that I need not dwell long on it. The church had an apse and an altar at each end. That at the east was considered the high altar, and the quire of the monks was enclosed in front of it. There was a minor altar at the extreme east end.

The western apse had the primitive arrangement of the Bishop's chair at the end and the altar in front of it. There is little room for doubt that this western altar was once the high altar, and that the eastern one with its quire had been added, probably in an extension of the building, for the use of the monks, and came to be considered the principal altar through the increased importance of the monks, who gradually made the whole church their own.²

Of this church nothing now remains to be seen except perhaps the marble chair of the Archbishop, which may be that which stood in the western apse. It is of Italian design, but of English material, and if not Saxon,

¹ In his paper on Winchester Cathedral in the Institute's Winchester Volume, Professor Willis has done for that church the same as he has done for Canterbury in his book, and he has printed some curious information about the church there as it was before the coming of the Danes, and also at its rebuilding, begun by Ethelwold and completed by his successor near the end of the tenth century. If there had remained anything to which we might apply the written account, it would have been very instructive, but by itself it is not definite enough to enable us to reconstruct the plan at either date. I shall, however, use it later to illustrate some details, and to save repetition give here a general reference to pp. 3-16 of Professor Willis's paper for all Winchester matter unless otherwise stated.

² Mr. Hope has shewn me a passage in the *Chronicon Monasterii de Abingdon* (Rolls Series, Ed. J. Stevenson). It was written in the thirteenth century, and thus describes the abbey church of Abingdon founded in 675: "*habebat in longitudine c. et xx. pedes et erat rotundum tam in parte occidentali quam in parte orientali.*" About three hundred years later, according to the same authority, the church was rebuilt or restored,

and apparently the same form kept. "*Cancellus rotundus erat, ecclesia et rotunda, duplicem habens longitudinem quam cancellus; turris quoque rotunda est.*" The latter passage would not be easy to understand without the former, but the mention of the *length* of the nave and of the chancel shews that the roundness was of the ends only. The round tower should be remembered. This and that at Canterbury are the only recorded instances that I know of English churches with apses at both ends; for that which figures in several places as the plan of the first church at Lyminge is a work of fiction, and a very poor one. But I think they may once have been not uncommon here. We shall notice, later on, other churches with western altars, and the *turning round* was probably in each case effected as at Canterbury by the erection of a monastic quire at the east end; and then at the rebuilding, which nearly always took place in the eleventh or twelfth century, the western altar which had come to seem abnormal was moved to the east end of the nave and set against the rood screen. The German churches with quires at each end, as Maintz and Worms, may perhaps be a tradition of an English arrangement taken to Germany by St. Boniface.

may be the work of that Peter, the Roman citizen, who was working in England about 1280.¹

How far the church which Bede tells us Austin consecrated² was the older Roman church, and how far it was his own work it is not possible for us to say now, but we know that the plan and arrangement of it were those usual in the larger of the primitive churches, and which have received the conventional name of basilican. This is what we should expect, for Austin and his fellows would, so far as their means allowed them, naturally try to make things as they had been accustomed to have them at home.

The missionary period seems to have lasted about a century. The first body which undertook to speak in the name of the Church of England was, I believe, the Synod of Whitby in 664, but the fusion of the Italian and the "Scottish" elements in her traditions was not completed for many years after that. We hear more of the Italian side, because it supplied the historians; but we must not forget that much of the hard work of the conversion of the English was done by men of Celtic race, who looked upon the Italian newcomers with suspicion, and were in turn regarded by them as irregular. These Scots, as they were called, built quite differently from the Italians, and the survival of their traditions in the buildings of later time testifies to the share they had in the formation of the Church of England.

We have seen that St. Austin's cathedral church was what is called an Italian Basilica, and before undertaking the search for other churches of the same sort, I will describe shortly what is meant by a basilica, that we may know what we have to look for.

The basilican church had a wide nave with an aisle, or in some cases two aisles, on each side. At one end of the nave stood the altar, raised upon a platform, beneath which was a vault called the *confessio*. Above the altar was a great arch and behind it an apse. A space before the altar was enclosed from the rest of the nave to form

¹ Several other churches of very early foundation preserve the chair, which was once the seat of honour at the end of the apse with the primitive arrangement. There is one at Beverley, another

at Hexham, and I lately found part of one in a collection of relics of ancient stone-work in the triforium of Peterborough.

² *Ecc. Hist.* l. 1, c. 33.

the quire of the singers, and there were seats against the wall round the apse for the higher clergy, a chair or throne for the Bishop being in the middle. In some of the larger buildings there was interposed between the nave and the apse a sort of transept or transverse nave often as large as the other, but without aisles. In such a case the quire enclosure was in the transept. Entrance to the *confessio* from the church was arranged in different ways, but the most usual was by two sets of stairs outside the screen of the quire. And, where the levels allowed of it, there was a window below the altar through which the *confessio* might be seen into from the church. At the end opposite the altar was often a large porch, from which the doors to the nave and aisles opened, and beyond that again a courtyard surrounded by covered walks, after the manner of a cloister. The altar was sometimes turned to the east and sometimes to the west. It was arranged that the celebrating priest should face to the east, but held indifferent whether he stood before or behind the altar.

Every church did not have all the parts here described. Sometimes the *confessio* was left out, and often the buildings at the other end were curtailed, reduced to a

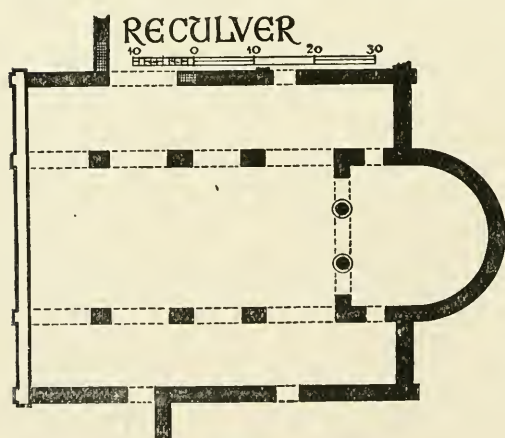


FIG. 1.

single portico along the front of the church, or omitted altogether.

Now let us search whether there be amongst the remains existing in England any which seem to have belonged to churches of this sort. I begin with Reculver (fig. 1), because it is in Kent, and near both in time and

place to the centre of the Italian influence. The church was rather wantonly destroyed about the beginning of the present century, but we have its foundations and some of

its ruins, which Mr. Dowker carefully examined some years since, and described, giving a plan upon which the present one is based. The early part consisted of a nave 50 feet by 24 feet, opening by four arches on each side into aisles, and to the east was an apse the width of the nave. What may have been at the west was destroyed by later work. The appearance of the plan is quite Italian, except that, in place of the wide arch at the entrance to the presbytery, there was an arcade of three arches, separated by two tall stone pillars, which are now preserved in the Cathedral Close at Canterbury. They are rude, but the influence of the Corinthian order may be clearly seen in them. They may properly be described as debased Roman, and the same may be said of the method of building. The one departure from Italian precedent—the substitution of an arcade for the great arch, which we shall find repeated elsewhere—came of the want of experience in such work on the part of the builders, who were most likely English, and the lack of skill to direct them in the Italian, or Italianised, *amateurs*, under whom they worked. They seem to have feared to throw an arch over a large span, so where a wide opening was wanted they divided it by pillars.

Where there is so much that tells of early date, and Italian influence, it is scarcely rash to conclude that we see the remains of the church which we know was built at Reculver about 670.

The next example (fig. 2)¹ is chosen because it is the most complete of its kind that we possess. The men of Brixworth in Northamptonshire still worship within the walls of the church built twelve centuries ago. It has lost its aisles, and the apse has suffered a foolish “restoration,” but most of the original building remains. The nave is about 60 feet by 30 feet, and therefore considerably larger than that at Reculver, but it has the same number of arches at the sides, and at the east end there has again been the arcade of three instead of one wide arch. This arcade, however, has not opened into the apse, but into a chamber 30 feet square, on the east side of which is an arch into the apse, and, reached

¹ On this and other plans of churches having crypts their forms are shewn by shading the voids.

BRIXWORTH, NORTHAMPTONSHIRE.

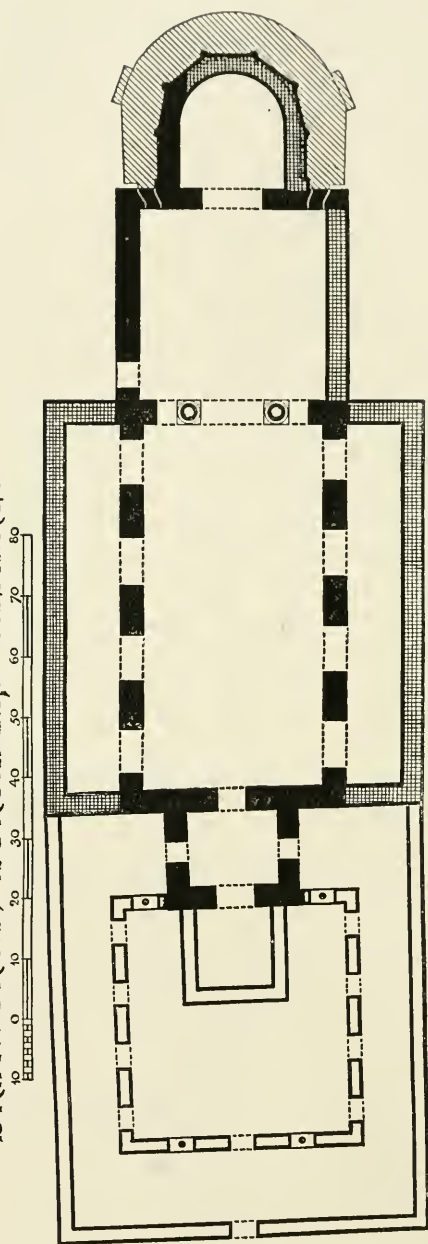


FIG. 2.

by steps downwards, two small entrances to a passage, which runs round outside the apse partly below ground, and I have no doubt once was the way to and round a *confessio*.¹

The square chamber, between the nave and the apsidal presbytery, is the transverse nave or transept of the Italian basilica. It is possible that at first it extended sideways to the walls of the aisles or beyond them, and was shortened when they were pulled down, as will be related further on; but I have not been able to find any evidence of this in the work, whilst the treatment of the entrances to the *confessio* seems to indicate that there was a little difficulty in getting them in between the screen of the singers' quire and the side wall, which there would not have been had the transept been of full length.

At the west end of the church is a tower, itself of Saxon date, but only the lower part belongs to the first work of the church. This forms a chamber with an arch on each of its four sides. That to the east opens into the church, that to the west now into a later stair turret, but once either into the open air, or, as I think, more likely into a small baptistery. The side arches, which are smaller, opened into the covered walks of the forecourt, the butting of the arcade walls of which may still be seen north and south at the west corners of the tower.

We have here evidence of all the parts of a basilica as before mentioned. The transept is reduced to the width of the nave, and the porch is cut down to a small chamber, and, though there is evidence of covered walks at the side of it, we can not be sure that they were continued all round a fore court. Nevertheless, all the parts were there, and I believe the baptistery besides, an Italian origin for which might be claimed, but I will not stay to do so now.

About A.D. 680 the monks of Peterborough, or Medeshamsted, settled a colony at Brixworth, and built a minster there, which I venture to think is that which has just been described. The old monastery continued until 870, when the place was harried by the Danes and the minster burned; and, for reasons which will be mentioned later, it is likely that before the catastrophe the church had

¹ See note A at the end of this paper.

received the addition of a western tower formed by carrying up the four walls of the porch. It lay in ruins for a time which we can not measure, but which seems not to have been long. As often happened the church ceased to be monastic, and continued as a parish church. When it was repaired the aisles were pulled down and the side arches blocked up. This saved the cost of roofing, and enabled the place to be put into order the more quickly; and, indeed, it gave a church larger than was necessary for parish use. Later on other changes came, the last which we can identify as Saxon being the addition of a round stone turret in the middle of the west side of the tower in the place of the older baptistery, the arch towards which it blocks up. We have here noted four distinct dates of Saxon work in this one church, and perhaps there may be more which we can not now distinguish. In the later middle ages it was treated as most parish churches were, and improved according to the ideas of its users. Fortunately, there was no need to enlarge it; but a large south chapel was added, windows were inserted at various dates, and the presbytery was rebuilt. In the fourteenth century the tower was heightened and crowned with a fine spire. In our time the building has suffered from a well-meant but badly conceived "restoration," and has lost much which can never be recovered.

From Brixworth let us turn to the mother church at Peterborough: it is convenient to use the name which all know. The great church of later times has nothing Saxon about it; but during the works consequent on the rebuilding of the central tower, Mr. J. T. Irvine, F.S.A. Scot., the clerk of works, found some old foundations which were afterwards traced through the transept, and gave the plan as shewn in black on (fig. 3). I have had the good fortune to examine them several times under Mr. Irvine's guidance, but have not yet been able to bring him to my way of interpreting them. The walls remain for some distance above the old floor, which was of plaster, the degenerate descendant of the Roman *Opus signinum*, but all wrought stone has been taken away. I think that anyone who looks on the plan, and also on that of Brixworth, bearing in mind the relation of the latter to

the Italian basilican plan, will see that what we have at Peterborough is the transverse nave or transept with the side walls of the presbytery of a basilican church somewhat larger, as one would expect it to be, than the daughter church. I have continued the plan sufficiently to shew how it works out. Perhaps some day more may be found to confirm or disprove my interpretation.¹ The plan seems to require an apse, and the fact that there is one at Brixworth would lead us to expect one; but the place where it might be is now filled by a Norman foundation, and Mr. Irvine, who examined the ground beyond

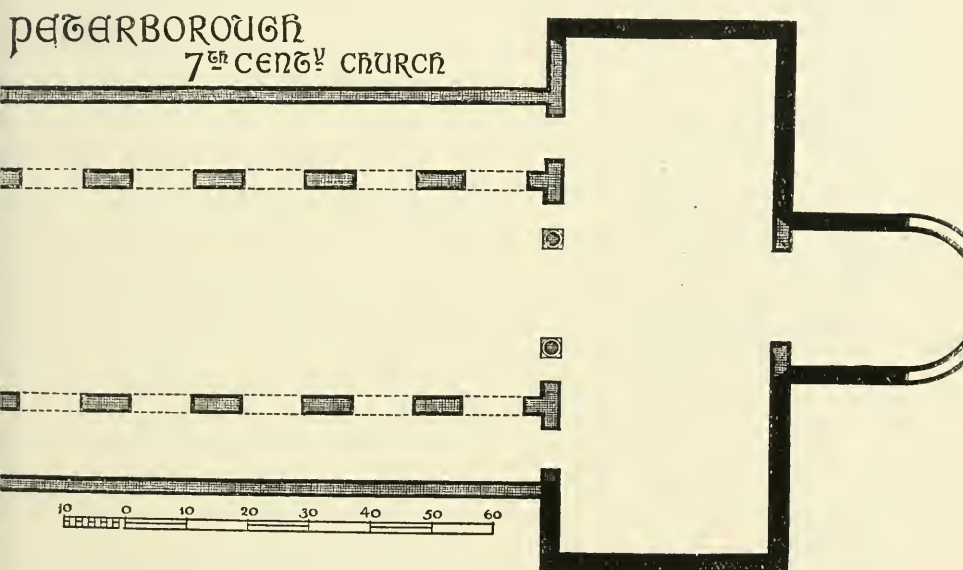


FIG. 3.

this, found graves which he thought were Saxon, and had been outside the presbytery. If he is right the end must have been square. The ground is not suited for the formation of a crypt.

¹ In 1894, by permission of the Dean and Chapter, I dug in the cloister court in the hope of finding further foundations of the seventh century church, but without success. Everything within the old cloister garth seems to have been grubbed up, probably by the gardeners. Within the east cloister walk we found a good deal, some certainly, and all, I

think, of later date, but nothing that threw any light on the old church. Perhaps the west end might be found by trenching down the north walk of the cloister. I could not remain to do it at the time, but may ask leave to try again some day. I am pretty sure nothing remains under the grass.

I have said something in a former paper read before the Institute and printed in the thirty-ninth volume of the *Archæological Journal*—where the printer amused himself by transposing the titles of the plans—about the churches which St. Wilfred built at Hexham and Ripon. In that paper I tried to shew that the crypt which still exists in each of those churches was the *confessio* of a basilican church, of which the high altar was at the west end, and that those churches were built by St. Wilfred before 678. Though other views of them have been advanced since I wrote, I have not met with anything which alters my opinion. I will not go through the arguments again now: I only repeat the plans of the presbyteries drawn above

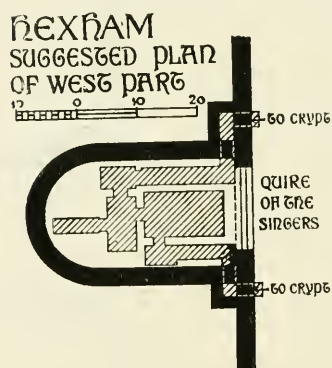


FIG. 4.

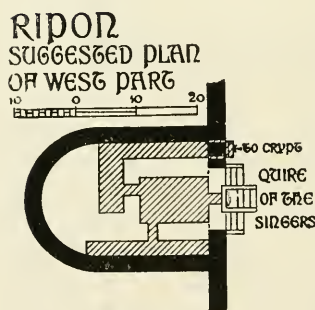


FIG. 5.

the crypts which exist, and refer to the churches as buildings, of very distinctly Italian form, in the North of England, where the Scottish tradition was much stronger than it was in the South.

We have a written description of the church at Hexham (fig. 4), which was a very notable one in its time: the historian of it goes so far as to say that it had not its equal on this side of the Alps. We are explicitly told that it was in the Roman fashion, and the description confirms this, whilst the western crypt indicates that it was very Roman. It can not have been anything less than the church of which the remains have been found at Peterborough. The church at Ripon (fig. 5) was smaller than that at Hexham, but what is left of each shews them to have been of the same type.¹

The works at York Minster, which followed on the burning of the quire in 1829, brought to light evidence of

¹ In figs. 4 and 5 the walls of the churches are shewn black for clearness, as there is no need to distinguish existing from conjectural parts.

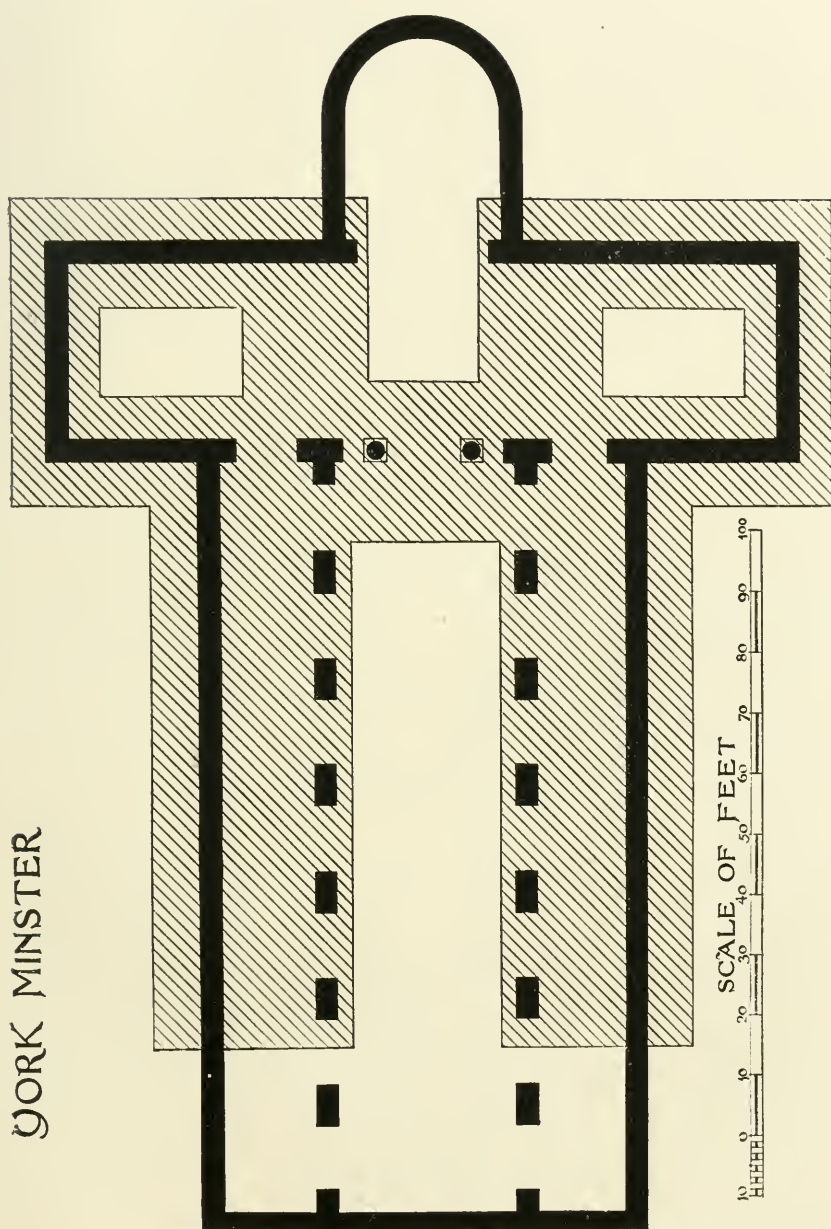


FIG. 6.

the earlier buildings on the site, and we have to thank the late Mr. John Browne for keeping a record of it at a time when few men cared for such matters. In the western part of the quire, below everything else, there was found a remarkable foundation of concrete and timber. It did not belong to the present building, nor to the Norman one which preceded it, but to something older; and, when the plan of it is laid down by itself (fig. 6),¹ it appears plainly to shew the foundation of a basilican church with a transept like that at Peterborough. The foundation of the presbytery is wanting, and was probably removed in the course of the building of the present quire, and I suspect that something is also wanting at the west, where the central tower of the church is now, and that the building went on further, far enough to make the nave equal the transept in length. The width of the transept was about 30 feet, and that between the aisle walls about 68 feet. If the ancient walling which remains visible at the sides of the site of the nave be the substructure of the arcades of the first church, the middle span was about 30 feet, but, if they be later, it may have been a little more. The continuation of the foundation all across, in line with the western wall of the transept, seems to point to the substitution of an arcade for the "triumphal" arch in that place, as we have seen at Reculver and Brixworth.

We can not say what was the form of the presbytery; but assuming it to have been as drawn, which seems a likely proportion, the total internal length of the church would be about 190 feet.

We learn from Bede that King Edwin, after his baptism in a temporary wooden church by Paulinus in 627, began *majorem ipso in loco et augustiorem de lapide fabricare basilicam*.² The King was killed in battle soon after, and the church was finished by his successor. Wilfred repaired it when he filled the see of York, and Alcuin studied and taught there. If I am right in my interpretation of the foundations, the daily office is still said upon

¹ See Browne's *History of the Metropolitan Church of St. Peter, York*, plate III. In my plan the form of the concrete platform is shown by open scoring,

and the suggested plan of the church in black.

² *Hist. Eccl.* l. 2, c. 14.

this very spot now in the middle of a minster *majorem et augustiorem* than any of them ever dreamed of.

The church at Wing in Buckinghamshire (fig. 7) rivals that at Brixworth in completeness, and resembles it in many points, although it is smaller. The presbytery has seven sides, and is very perfect. The *confessio* below it has lost the communications with the church above, and the *arcosolia*, which once projected from it beyond the outer walls on north, south, and east, are gone, but it remains a very good example of the *confessio* with central chamber and passage round. There is clear evidence of the stairs up to the church on each side, and the plan suggests that there was a small window by which the

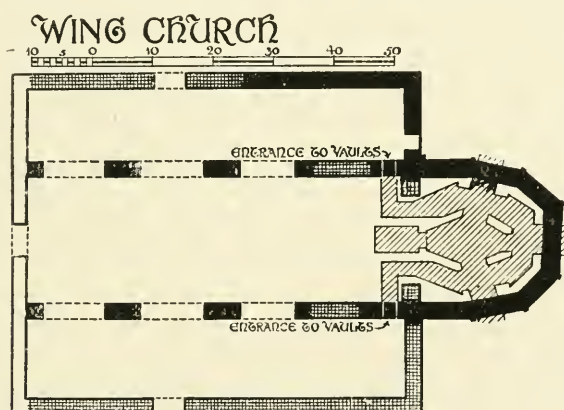


FIG. 7.

crypt could be seen into without entering it, but unfortunately the wall where it should be has been rebuilt.

The arcades are like those at Brixworth; but as they still open into aisles, and have not been stripped of their plaster, they look much better. They have plain imposts on the soffits only, and the arches are somewhat wider than the opening between the piers below,¹ which is a common Roman form, and is often found in Saxon work of all dates.

The chancel arch is evidently modern, cut through the wall because what was there before was not thought

¹ Some of the arches are brought back to the lines of the piers by the curves being returned inwards in the horseshoe

form. This may be done only in the plastering.

sufficiently open. It may have been either one arch or an arcade of three, but the form of the crypt below seems to indicate one rather narrow arch, as is shewn on the plan. In the east gable of the nave is a two-light window, with midwall shaft, opening above the roof of the presbytery. Much of the walling of the clearstory and some of that in the aisles remains, but more recent work has taken away all the original windows, and the traces of them, except a few in the presbytery and that in the gable, and all the doors except one at the east end of the north aisle, which, though of Saxon date, has the look of being later than the rest of the work.

The nave here has no transept between it and the presbytery, but the arcade walls seem to have been unpierced at the east end so far as the quire of the singers extended, and where there are now two modern arches.

Altogether the church shews the basilican form better than any other now standing in England, and will give a better idea of what our first English churches of the larger sort were like. It can not be far removed in date from that at Brixworth, and I do not think it later than the seventh century.

Another church built, as we learn from Bede, under Italian influence was that at Monk Wearmouth. Benedict Biscop, the builder of it and of the sister church at Jarrow, was an Englishman, but had been much in Italy and France, and came back to his native land as a missionary in the train of Theodore of Tarsus, who afterwards became Archbishop of Canterbury. It might be expected that he would follow the foreign fashion in his building, and we are told that he sent for men from France to make glass for his windows, as none was then made here.¹ But when we seek for remains of his work we find something very unlike the churches we have just discussed.

At Wearmouth the church is now for most part modern, but there remain of Saxon work the west wall of the nave and the tower, and in 1866 the foundations of the side walls of the nave were opened out. I have to thank Mr.

¹ This statement by Bede is sometimes quoted as meaning that Benedict sent for men to make *painted* glass; but it is not said so, and is very unlikely.

W. H. Knowles, of Newcastle, for a plan of the church, which he was good enough to measure expressly for my use, and upon which the present plan (fig. 8) is based. The church has had a long and proportionately narrow nave without aisles, and a west porch of four openings, carried up later as a tower.

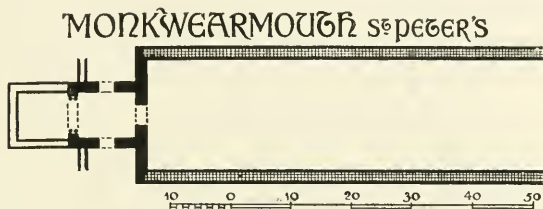


FIG. 8.

In 1884 I was able to find some remains of the side walls of the baptistery west of the tower, but, except the two small doorways which led to them, nothing to tell of the covered ways of the forecourt. The whole of this forebuilding, which is one of the most remarkable relics of early work in England, is arranged exactly like that at Brixworth which stands in front of a church of the Italian basilican form. But at Wearmouth we have a church altogether different, and one which we shall see later on belongs to another tradition derived from Ireland and called in the seventh century *Scottish*. The Italian and the Scottish traditions meet thus early here, and stand side by side, but have yet scarcely begun to unite.

Benedict began his church at Jarrow in 681, and it was consecrated, as the still extant inscription tells us, in 684. The side walls of the chancel of the existing parish church (fig. 9) have been admitted by most antiquaries to be Saxon, though there have been differences of opinion as to the date and the meaning of what is left.

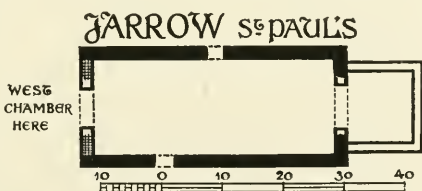


FIG. 9.

Sir Gilbert Scott¹ says that "the chancel of the Saxon church remains." I think, however, it is not the chancel, but the *nave*. When in the twelfth century it was worked in as the chancel of the larger church, its plan was that of a chancel of the time, but we have no example of a long,

¹ *Medieval Architecture*, Vol. II, p. 47.

narrow chancel of Saxon date. Indeed, the Saxon churches had no chancels in the later meaning of the word: the eastern divisions of them were *presbyteries*, and the quire of the singers, where it existed, was formed within the eastern part of the nave. If the Jarrow plan be compared with that of the undated but certainly early

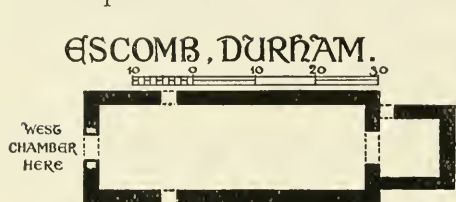


FIG. 10.

church at Escomb (fig. 10) in the same county, it will be seen that it needs only the addition of the small presbytery at the east to make it practically the same.¹ And with

the like addition the church of Wearmouth makes a third. Jarrow probably had a west porch and a fore-court like Wearmouth, and Escomb certainly had a building which may have been a porch at the west, where it has left traces on the wall and foundations below ground.

I can not doubt that all three are of one age, and that the age of Benedict Biscop and the Venerable Bede. And although their simplicity of form and comparative narrowness shew the Scottish influence, it is likely that at least those which were monastic—and that may have been all three—were fitted up with quires more or less after the Italian fashion, and followed it in many details of furniture and arrangement. Indeed, I suspect that the collection of turned pillars and curiously wrought stone-rails now perishing in the porch at Jarrow and some better cared for in the vestry at Wearmouth are the ruins of the early quire enclosures.

Returning to the consideration of the more strictly basilican plan with aisles, it should be noted that all the examples described except Wing, of which we have no record, are known to have been built within the seventh

¹ I made this suggestion a short time since to the Rev. Dr. Fowler, F.S.A., and he very kindly, and at his own suggestion, went from Durham to Jarrow to look for some points I wished to know about. He found the quoin stones at all four corners, thus proving that we have the whole of the nave, and he

learned that the foundations of the west wall are known to exist. There have been doors on both sides, as we should expect in a nave, but the east end has been so altered in later times that no certain evidence of the presbytery arch is to be seen.

century. And with one uncertain exception they are *all* the Saxon churches, which I know, in which any evidence of aisles can now be traced. The list might be enlarged from written sources; but a verbal description of a building, unless supported by actual remains, is generally too uncertain to build an argument upon. The exception is the larger church at Deerhurst, which has some appearance of there having been aisles, whilst the treatment of the eastern parts, both in plan and detail, indicates a late date. We know little of the history of the church, and later rebuilding has so obliterated the earlier aisles that their existence is only inferred from appearances outside them.¹ The evidence, then, seems to shew that where aisles are found in a Saxon church we may suspect a very early date. Even at Deerhurst, if the aisles had remained still, they might have shewn us that they belonged to a state of the church much earlier than the east end and transepts.

The use of the western porch and forecourt seems to have been continued after that of aisles had been

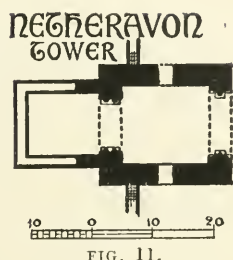


FIG. 11.

NETHERAVON THE TOWER

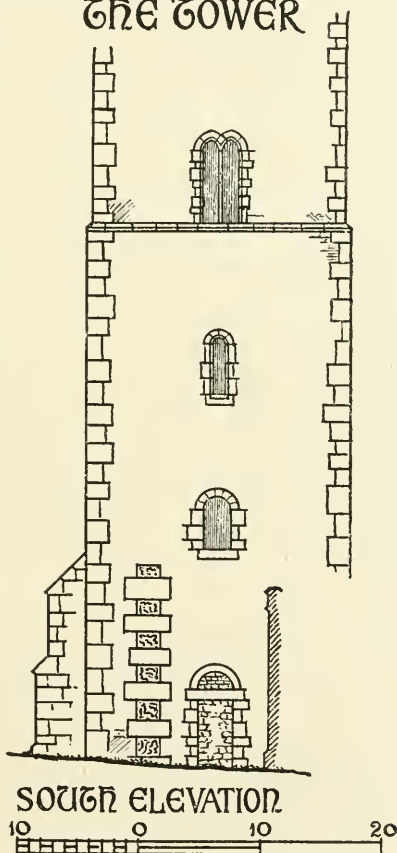


FIG. 12.

¹ It has been said that the Saxon church at Repton had aisles, but the responds destroyed by the "restorers" in our time, which were assumed to

belong to arcades, really belonged to arches opening into transeptal chapels, as Mr. Irvine has proved.

given up, and we find traces of it quite to the end of the Saxon period. At Nether Avon in Wiltshire is an example (figs. 11 and 12), which is remarkable for the completeness of the evidence as to the buildings which abutted on the porch. I owe my knowledge of it to Mr. C. Ponting, who sent me his drawings of it some years since, and allowed me to take the copies, which I am now using. The north and south sides of the tower shew the usual doorways and also very clearly the quoin-stones which have bonded in the arcade walls of the covered walks. These walls have been of good height, and there is a small doorway in the tower wall with its sill about level with the top of the wall, shewing that there was a flat ceiling over the side walk and a chamber accessible from the tower in the roof above it. Flanking the west arch of the porch are two buttresses, which are cut down from the side walls of the baptistery. In this case the tower seems to be of one work all the way up, and not an addition above the porch, as in earlier examples. By the time of its building the arrangement must have become an accepted one. The detail of the eastern and western arches of the porch is elaborate though rude, and it approximates so closely to Norman work that we can not date it much earlier than the middle of the eleventh century.¹

The story of the first burial of St. Swithun in 863 shews us a forecourt at Winchester with a gate tower in the middle of the side opposite to the front of the church :

*“Turris erat rostrata tholis, quia maxima quadam
Illius ante sacri pulcherrime limina templi,
Ejusdem sacrata Deo sub honore hierarchi :
Inter quam templique sacram pernobilis aulam
Corpore vir Domini sanctus requievit humatus.”*

Whether this was a usual place of burial is not certain ; but it was not one of honour as the Bishop chose it out

¹ The work at Nether Avon should be compared with the tower of Langford Church in Oxfordshire, about thirty-five miles from it, and evidently built under the same influence, if not by the same men. The Langford tower is central without transepts, and is of uncommonly fine design for its time.

Nothing besides the tower seems to remain in its place of the church to which it belonged, but built into the wall of a later south porch is a life-size stone rood of Saxon date, and perfect all but the head. It is like that which remains at Romsey, and that which once existed at Headbourne Worthy in Hampshire.

of humility. St. Swithun died before the Danes came to Winchester, and the church over which he ruled may have been that of the seventh century, but the mention of the tower seems to shew that the forecourt was either added or altered later. In 980 Ethelwold, the then Bishop of Winchester, consecrated the church which he had either rebuilt or greatly restored—*de novo renovavit*—and his successor did more work there, and consecrated the church again, as it seems, in 993. There was a forecourt to this church also, and there were chapels opening out of it; but the inflated style of the description makes exact interpretation impossible.

Besides the basilican churches, smaller churches without aisles were built under the Italian influence, and there is a remarkable group of them in Kent, for the use of plans of which I have to thank Mr. St. John Hope. Passing over St. Martin's for the present we find, first, the church of St. Pancras (fig. 13) at Canterbury, which we have evidence was used by St. Austin himself. One can

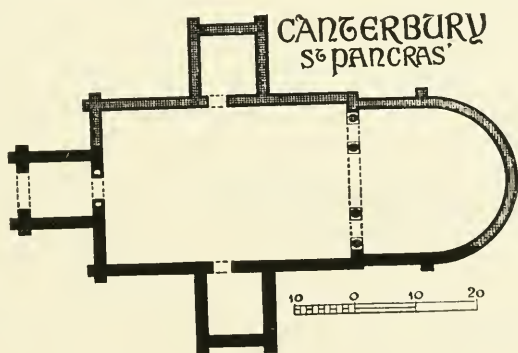


FIG. 13.

not but regret that so venerable a building should be a desecrated ruin, but perhaps we should not know so much about it if it had continued in use. As the plan shews, it has a wide but short nave and a large round-ended presbytery separated from the nave by an arcade of three arches, as we found it in the basilican churches at Reculver and Brixworth. Outside the church there is a porch to the west and one to the south, and Canon Routledge says that there also remain the foundations of one to the north.

At Lyminge a monastic church was founded in 633, and in the present churchyard south of the existing church, the building of which is attributed to St. Dunstan,

there are the foundations of an earlier church (fig. 14) of like form with that of St. Pancras at Canterbury but smaller, and without any evidence of the existence of porches. It had the arcade

LYMINGE

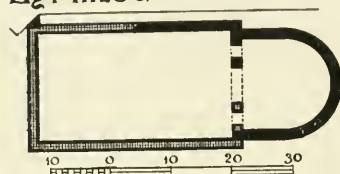


FIG. 14.

of three instead of a single sanctuary arch. The next example is what there can be no hesitation in believing, as its finder the Rev. G. M. Livett asks us, was the foundation of

the church built at Rochester in 604. Enough has been found to give the form of the presbytery and the width of the nave (fig. 15). The foundations of the two pillars

ROCHESTER

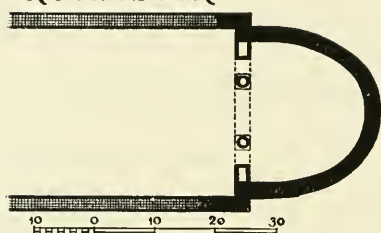


FIG. 15.

of the dividing arcade have not been found, perhaps because they have not been sought for, but they must have been there.

In the recent discussion on the dates and story of the building of St. Martin's church at Canterbury all parties have taken it for granted that the present nave

is the original building, and all that is east of it is addition. But now Canon Routledge and Mr. Livett have told us that they have found, beneath the floor of the nave, foundations in line with the side walls of the chancel and running for some distance westwards. This important discovery, proving as it does that the chancel¹ is the earlier, and that it has been shortened at the west, when the nave was added to it, has put aside all former speculations and very much simplified the case. The walls of the chancel are entirely of brick, and nothing like them is known anywhere else except at the neighbouring church of St. Pancras, which is built in exactly the same way, and the date of one must be, within a few years, the date of the other. Furthermore, if we elimi-

¹ For convenience I leave out of account the eastern part of the chancel built in the thirteenth century, and use the word to indicate the western part

only—that part which is built of brick, and which has hitherto been admitted by all to be Saxon.

nate all later work and consider only what we know of the earliest, we shall find in the church of St. Pancras the key to unlock the mystery of that of St. Martin.

There remain above ground at St. Martin's the south side-wall of the chancel and part of the north, and we are told that they have run further west than they do now. We are also told that the returns of an eastern wall for two feet on each side have been found under the floor, and they who tell us so have suggested that there was an apse projecting from it. At the west end of the south wall, where it has been cut short by the building of the existing nave, there has been a low square-headed doorway, and outside of it are marks on the wall and foundations below ground which tell of a small chamber there.¹

Now what have we got here? There is (fig. 16) a main building standing east and west 14 feet 6 inches wide inside, and not much less, and probably not much more, than 30 feet long. At the

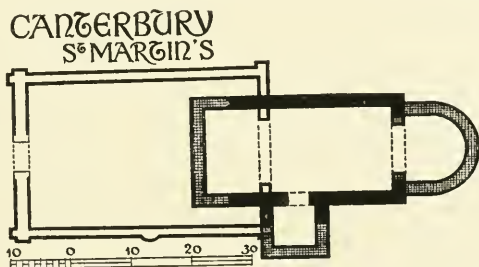


FIG. 16.

east end of this there is a gap in the wall which, it has been surmised, tells of an apse; and about the middle of the south side is a doorway leading to a little chamber outside. Have we not all these parts on a larger scale in the plan of the church of St. Pancras? There is the nave or body of the church with an apsidal presbytery at the east, and entrances with porches outside of them in the middle of the sides.

This, I believe, was the form of the church of St. Martin as St. Austin knew it. It was small, but not so small as some which we shall consider later on, and it would be quite large enough for the little body of Christians who came over here with Queen Bertha. It was probably built for her and them, but it may have been on the site of a

¹ The round-headed doorway on the south side of the chancel, though itself of Saxon date, is evidently an insertion in the wall.

British church. The dedication to St. Martin was most likely theirs.¹

All through the controversy I have contended against the claim for the present nave of St. Martin's to be Roman. The only argument for it has been the use of pounded brick in the plaster and in the mortar of the western window arches. But that by itself is not enough. All Saxon building was debased Roman, and the use of pounded brick in this instance proves only that there was someone about at the building who either knew by tradition, or had read or had noticed in some Roman work which perhaps he had helped to pull down, that it was used by the Romans; and, as there was abundance of broken brick lying at hand, it is not extraordinary that it should have been used here. Mr. Dowker found pounded brick used in the *opus signinum* floors at Reculver, which is now admitted to be Saxon, and it has also been found at St. Pancras's.

The walling of the nave at St. Martin's is against its Roman date. It is made up of older materials used promiscuously just as they came to hand, and tells of a time when there were ruins near, at which the builders might help themselves. This could scarcely have been the case in Kent in Roman times, when it was a settled and peaceful district, but was likely enough after the wars and confusion which accompanied the English conquest.

I do not know whether those who have contended for a Roman date for this work will do so still. But, if they do, whatever date they give to the nave of St. Martin's they must give an older to the chancel, and with it they must carry back the church of St. Pancras. Perhaps they will do so, and quote the story of that church having been a heathen temple. Then they must explain the fact of the temple of the heathen god being built after the fashion of a Christian church, and one so far satisfactory to the missionaries from Rome that they made it the model upon which their own smaller churches were built.

The chapel of St. Peter on the Wall built on the site of the principal gate of the Roman fortress of Othona, in the parish of Bradwell, on the coast of Essex, near the mouth

¹ In the plan the older Saxon church is shewn in black and scoring, and the later work in outline only. Post Saxon work is omitted.

of the Blackwater, seems to be another example of this, which may be called the St. Pancras type of church. It is described by Mr. T. Lewin in a paper, in the forty-first volume of *Archæologia*, pp. 421-452, where he gives a plan to a small scale.

We learn from Bede¹ that Cedd, the Apostle of the East Saxons, built a church in this place soon after 653. And Mr. Lewin claims that the old chapel, the wreck of which is now a barn, is that church. Mr. F. Chancellor, in *Archæological Journal*, XXXIV., pp. 212-218, contends, arguing from the presence of certain buttresses, which he says are part of the original construction, that the building is of the thirteenth century. Mr. Lewin says that the western corner buttresses, which are the most important for the argument, are added. Without having seen the place I can not give any opinion as to this. But the plan which is given in both papers is very unlike that of a thirteenth century English church, and closely resembles those which we have just been considering. It consists of a nave about 50 feet long and 23 feet wide inside, with an apse of nearly the same width, and something more than a semicircle, at the east. Mr. Chancellor points out that the springers, which remain on each side of the opening between the nave and the presbytery, are of too sharp a curve to have spanned the whole width, and he suggests that there were two arches and a central pier. It is more likely that there were three; but the use of two arches, though certainly clumsy, is a not impossible variation of the arcade which we have found so often in buildings of known early date. The chapel has had a small western porch as at the church of St. Pancras, and from later notices it appears that the porch was afterwards carried up into a tower, as was done at Wearmouth, Brixworth, and elsewhere. The materials are taken from the ruins of Roman works in the midst of which the chapel was built, and there are no architectural features beyond those already mentioned which can throw any light upon its date.

In the first volume of the *Ecclesiologist*, p. 165, there is a description of a ruined church at South Elmham, near Bungay, in Suffolk, known as the *Old Minster*. And in the

¹ *Ecc. Hist.*, III., c. 21.

fourth volume of the *Proceedings of the Suffolk Institute of Archaeology* there is a paper by the late Mr. Henry Harrod, wherein he argues, I think conclusively, that this place, and not North Elmham in Norfolk, was the seat of Felix, the first Bishop of East Anglia. In the same volume there is another paper by Mr. B. B. Woodward, with a small plan of the church and its precinct. Mr. Woodward places the building at "about A.D. 1000." Mr. Harrod calls it "early Norman," and is very careful to guard himself from any suspicion of belief that it can be of earlier date. Perhaps in the year 1863, which is the date on the plan, it might have been regarded as a sign of idiotey for a man to claim not only that Felix settled at South Elmham in the first half of the seventh century, but that the ruins of the church he built are still there. Such, however, I believe to be the case.

SOUTH ELMHAM

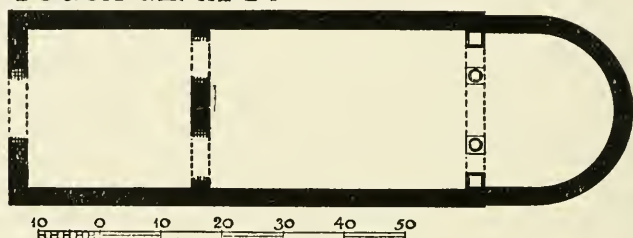


FIG. 17.

The *Old Minster* stands near the middle of what seems to be a Roman camp, and, although not exactly like any we have yet examined, it clearly belongs to the class of which the church of St. Pancras at Canterbury is the type.

The plan (fig. 17) here given is chiefly taken from that which accompanies Mr. Woodward's paper. The nave and presbytery agree very nearly in form and measurements with those of St. Pancras's. But there are no side doors or porches. The entrance is by two doorways at the west end from a chamber the same width as the nave and 27 feet long from east to west. This chamber has had one external door in the middle of the west wall, and it makes the whole building the largest of its type which has yet been noticed. The west chamber

was probably a baptistery, and it is not unlikely that there was an altar between the two doors leading to the church. Of the wall between the nave and the presbytery nothing is now visible above ground. It is almost certain that there were once the three arches there; and a little digging might discover the evidence of them.

We have thus six churches of a very marked type, and each one of them stands in a place where we know from written evidence that a church was built in the seventh century, or late in the sixth, by the first missionaries. And one feature in these six churches—the arcade before the presbytery¹—is only found elsewhere in a few churches, which we have good reason to believe are themselves of the seventh century. The conclusion is almost certain that the buildings, the remains of which still exist, are those first built on their respective sites, and that three out of the six were the modest cathedrals of the earliest missionary bishops.

A glance at these plans shews how different they are from those of the Northumbrian group, although they may be made up of the same parts. I have already said that the last-named owe their form to the Scottish tradition, and before going further it will be well to consider what that was.

The only building in England which can reasonably be claimed to be a church of the time of the Roman occupation is that lately found at Silchester (fig. 18). It is quite Italian in form, and, small as it is, has more in common with Reculver, Brixworth, and Hexham than with the buildings of the Irish Scots, who derived their Christianity from the Britons, and in turn helped to bring it back to the English.²

These Scots had their own way of church building, and I think we need not seek a remote Eastern origin for it as some have done. It probably originated in lack of skill to do any better on the part of the first Irish church builders.

¹ This arcade must not be confused, with the narrow chancel arch, with an opening formed on each side of it, sometimes found in Norman buildings.

² The apse at Silchester is turned to the west; and to the east, in the middle of a kind of forecourt, is the base of what may have been a fountain.

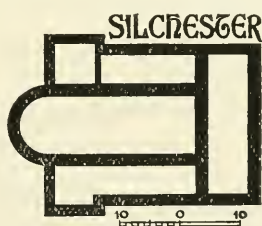


FIG. 18.

They were accustomed to houses the shape of beehives, and made by piling up stones without mortar, or by setting up a number of poles in conical form and covering them with turf and earth. And when they wanted churches they built them in like fashion, but tried to make them rectangular, not always with success. Soon they did better; but the rude hut, with the altar at the east side and a little door at the west, was the beginning from which they worked, and its influence remains in our English churches even to-day. The little chamber or presbytery was better built, and had a window given to it. Then in front of it a larger chamber was built to shelter the worshippers, but still the entrance to the presbytery was but a doorway, and when it grew into an arch it was a very small one. This last development brought the "Celtic" church to a small square-ended presbytery opening by a narrow arch into a somewhat larger nave.

When the "Scottish" missionaries came here and had occasion to build churches, they, like the Italians, did it in their own way. They often used wood; so often, indeed, that wood church building was sometimes called a Scottish fashion. But it is a mistake to think, as some have done, that they never used stone. St. Ninian had built his stone church at Whitherne nearly two centuries before Austin set foot in Kent. And when his followers overran England from Northumbria downwards they carried with them their form of building which met and

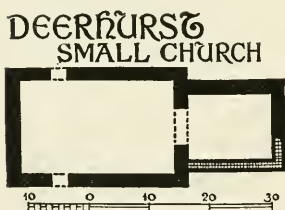


FIG. 19.

was modified by the Italian form, but contributed the larger share to the shaping of the English tradition. Most small English churches were built on a plan, which is purely "Scottish," all through the Saxon time and beyond it. There are scores of them all over the country. The smaller church at Deerhurst (fig. 19), built in the middle of the eleventh century, will serve for an example. Note its small square presbytery and narrow arch. The church at Kirkdale,¹ near Kirby

¹ An inscription over the south door tells us that this church was built new on the site of an older one, which was in

ruins, between 1056 and 1065. There are many stones with older knotwork built into the walls.

Moorside, is a contemporary and dated building of like form but rather larger size.

Corhampton, Hampshire; St. Martin's, Wareham; and Wittering, Northamptonshire, and many more, shew the same plan almost complete. Sometimes a western tower is added, as at Kirkhammerton, Yorkshire¹ (fig. 20); and often a parish church, which by enlargements and rebuildings has grown to something very different, may be traced back to a beginning of this form. Such are St. Benet's, Cambridge; Bosham, Sussex; and Brigstock, Northampton. And I believe the same is true of most of the very many churches which have Saxon west towers, but nothing else so old to be seen in them.



FIG. 20.

Except those of the early Northumbrian group, which, though strongly influenced by Scottish tradition, are not purely Scottish, all the examples of the Scottish type which have so far been mentioned with dates to them belong to quite the end of the Saxon period, and I believe that by far the larger part of the whole do so, and were built after the pacification of the country under Canute. But we know that there were churches built here between the seventh century and the eleventh; and when we find a plan introduced at the former time and still in common use at the later, we may reasonably assume that there were intermediate examples, although the want of distinctive architectural character and the almost total absence of written record makes it impossible for us to identify them. Even of important collegiate and monastic churches there is little to be found in history, and of the parish churches generally nothing at all, except what they preserve in their own fabrics. Of St. Michael's church, St. Albans, we know that it was built in 948, and if the "restorers" who have lately been operating there have not taken it away, there is enough of the original building left to shew that it was an aisleless nave with a presbytery. This carries us back 100 years; and if the existing chapel

¹ This plan was measured in 1892. Since then the church has suffered "restoration," and, I am told, is much altered.

at Bradford-on-Avon be that of Bishop Aldhelm, which I believe it is, we have in it an example of the eighth century.

The church of St. Nicholas at Leicester had a north aisle added to it about 1100, or a little earlier. It has been much altered both in mediæval and modern times, and the only Saxon work now to be seen in it is some of the west end, and the walling above the Norman arcade. There are remains of the original windows in that walling. The work has an early look, and seems to have belonged to a church of the Scottish type, but with the addition of buildings at the west, as we find in some other examples. There is, however, nothing left to tell us of the original form of the east end here. In Norman times the church was made cruciform, with a central tower.

The church at Boarhunt (fig. 21) in Hampshire is of this type. It is described by Mr. Irvine in the thirty-third

BOARHUNT, HANTS.

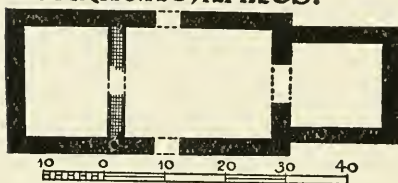


FIG. 21.

volume of the *Journal of the British Archaeological Association*, pp. 367-380, and he dates it about 1025. That date seems to fit well with the comparatively wide (6 feet 8 inches) and rather low chancel arch with a framing of square

rib work, and with the double splayed window, which, with its midwall slab, remains perfect, at the north side of the chancel. At the west end of this church there has been a chamber the full height and width of the nave and about 14 feet from east to west. This chamber was joined to the nave by pulling down the separating wall, as it seems in the thirteenth century, and its original use is uncertain. It was not a vestibule to the church like the west chamber at South Elmham, for at Boarhunt there are traces of Saxon doorways on both sides of the nave. It may have been the baptistery, or it may have been the dwelling of the priest or priests attached to the church.¹ There seems to have been a western chamber

¹ Not only in Saxon times, but a good deal later, dwelling places were much more closely mixed up with churches in England than is the custom here now. The Saxon west towers at Deerhurst,

Wearmouth, Brigstock, and Brixworth, were evidently dwelling places, and so were that of Bedale church, Yorkshire, and that lately pulled down at Irthlingborough church, Northamptonshire,

of the same kind at Diddlebury church, Salop, where only the north wall of the Saxon church remains, but in it is the return of the cross wall which formed the original west end of the nave.¹

The tower did not originally belong to either tradition of church building, but it was added to both. And the form of it in most general use was so closely copied from that of the common Italian bell tower that it is easy to see whence it came. It is a square prism, small in plan, and rather tall for its width, with few openings except the belfry windows, which are of two or more lights separated by turned shafts placed in the middle of the thickness of the wall. There are very many such towers at the west ends of churches in different parts of the country, and two remarkable groups of them one in Lincolnshire along the Humber and Trent, and the other along the Tyne. After the use of church bells became common they were probably hung in openings of the west gables where there were not towers for them. There are two openings which seem to have been for this use at Corhampton.

After the close of the missionary period, when the English Church had become a national institution, no more churches seem to have been built upon the Italian types of plan; but the Italian influence shewed itself still in the occasional use of the apse, the larger presbytery, and the wider arch, and probably also in many matters of detail and arrangement which we can not trace now. The Scottish type, on the contrary, continued, as we have seen, all through Saxon times, and was passed on to those which came after. It is excellent for small churches

both of them of the fourteenth century. Along the Scotch border there are church towers planned for defence as well as residence. Against the west wall of the nave of the church at Laindon in Essex, is, or lately was, a half timber house of three stories; and something of the same kind, called the *anchorage*, was the only dwelling provided for the parson of Chester-le-Street as late as 1666. He was allowed £10 a year to keep house on. (Blunt's *Thousand Years of Chester-le-Street*, p. S.) Some further remarks on this subject are transferred

to the additional note B at the end of the paper.

¹ The ruined chapel at Ebbs Nook in the parish of Bamborough, an account of which by Mr. Albert Way and Mr. Hodgson Hinde is printed with a plan in the eleventh volume of our *Journal*, had a west chamber the full width of the nave, but not of the same work with it. But judging from the plan, I do not think that the church is anything like the age there claimed for it. If the two side doorways are as shewn—rebated, chamfered, and splayed—they can not be earlier than the twelfth century.

when the requirements are simple, but the old builders were not content with it when room had to be found for several altars, or where any degree of architectural display was sought for. And their efforts to get something better, ending as they did in the evolution of the cross church, shew that, however much they were tied by Roman tradition, they were not without some power of advance in their own way.¹ The process was a very slow one, but the result was important, for it produced the plan which in its turn became the beginning of the more elaborate church plans of the Gothic period.

We see the germ of the cross church as far back as St. Austin's time in the church of St. Pancras at Canterbury. About the middle of the south side of the nave is what looks like, and really was, a porch. But it was more than a mere vestibule—it was a side chapel. The ruins of an altar still stand against the east wall, and it will be seen that the door to the church is kept to the west so as to be out of the way of the altar. The outer door must have been at a higher level with a descent of steps probably of wood, and I think that the two chases in the wall at the south-west corner, which appear to have been intended to fix woodwork, are marks of that stair.

Aldhelm's church at Bradford-on-Avon (fig. 22) has a porch in the middle of the north side of the nave with the outer door well to the west, telling of the former presence of an altar. This is later than the Canterbury example; but the arrangement is the same, except that the nave is very much smaller at Bradford, so that by comparison the porch has something of the dignity of a transept.

Whether there was a corresponding porch on the other-side is uncertain. But the appearance of such a building:

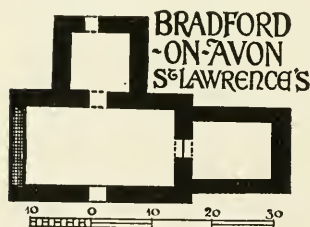


FIG. 22.

¹ Churches planned upon the cross were built in the East in very early times, but they did not appear in Italy any sooner than they did by independent development here. The Italian basilica even with the cross nave which

we, using the term we are accustomed to with respect to later work, call a transept, does not properly give the cross form, and I do not think that there was any idea of it in the minds of those who used that plan.

as that at Bradford seems to have suggested to someone the idea of separating these porch chapels from the entrances and moving them eastwards, and so getting the appearance of the cross plan outside. I say *outside*, because at first the transepts scarcely appear as such inside, being entered from the main church through very small openings, or mere doorways.

There is a very pretty example at Britford, near Salisbury, which I am sorry I have not a plan of. The nave walls remain with the transept arches in them. They are so small that some have called them doorways.

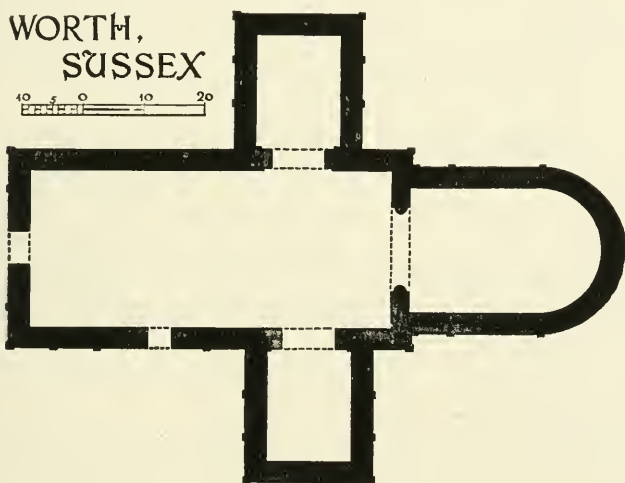


FIG. 23.

A larger and more complete example is found at Worth in Sussex, of which a plan is shewn (fig. 23). This is a church with a large presbytery, an apse, and a wide arch after the Italian tradition. But the transept arches are comparatively small. The transepts are not opposite to one another, which is probably accidental.

These churches are transitional in type, uniting elements from the Italian and the Scottish traditions and leading up to the purely English cross church. That at Britford has the jambs of its south transept arch enriched with some very curious carving, and, I think, is rather early,

probably of the ninth century.¹ The church at Worth has details commonly found in buildings of the last century of the Saxon period, and most likely is of that date.²

In these churches the development of the plan has not added to it any new member, and, although the cross form has been in a manner reached, the parts are only the nave, the presbytery, and the two side "porches," as at Canterbury at the end of the sixth century. The next step was important. A square was cut off from the east end of the nave by a cross wall in which an arch was formed, and that part was carried up above the roofs in the form of a broad tower. It was a great advance, and the beginning of that grand and specially English feature—the central steeple. The continued use, with it, of the smaller western tower shews that the intention of the central tower was to give dignity to the building. To what place and person the credit of its first achievement should be given we do not know, but it was generally taken up; and the cross, with a broad tower in the middle and a slender one at the west end, seems to have been the usual plan of the larger churches built in the later part of the Saxon period, whilst in smaller ones of the better sort the use of the central tower was not uncommon.

The earliest date I can find for a two-towered cross church is 969, when one was built at Ramsey.³ And I am sorry to have to add that the central tower failed, and had to be rebuilt, thereby setting a precedent much followed by the central towers of later times.

The presbytery and transepts kept the same relation to the nave after the addition of the central tower as they

¹ In 1887 I saw in the little church at Bradford-on-Avon a large slab covered with carving, which had evidently formed part of such a jamb as those at Britford. I was told that it had been found in the parish church, which stands near by, and it seems to be a relic of a ninth century church on that site.

² The church has been terribly "restored," but there is a good description of it before that catastrophe in the seventh volume of the *Sussex Archaeological Collections*. It is written by Mr. W. S. Walford, and has good wood-

cut illustrations. The present plan is based on Mr. Walford's.

³ "*Duæ quoque turres ipsis tectorum culminibus eminebant, quarum minor versus occidentem in fronte basilicæ pulchrum intrantibus insulam a longe spectaculum præbebat; major vero in quadrifidæ structuræ medio columnas quatuor, porrectis de alia ad aliam arcibus, sibi invicem connexas, ne laxæ defluerent, deprimebat.*" "*Hist. Ramseïens,*" cap. xx., in Gale's *Quindecim Scriptores*, quoted in Britton's *Architectural Antiquities*, Vol. V., p. 126.

had before, and therefore the four arms of the cross are not of equal sections, the eastern being generally smaller than the western, and the side arms still less. This would hardly have been so had the cross plan been the conception of one man, but it came quite naturally by the process of slow development.¹

Turning to actual remains, the only example of the two-towered church which we have in a state approaching completeness is that in the Castle at Dover (fig. 24), the builders of which adapted for their western bell-tower the Roman light-house, which they found already there.

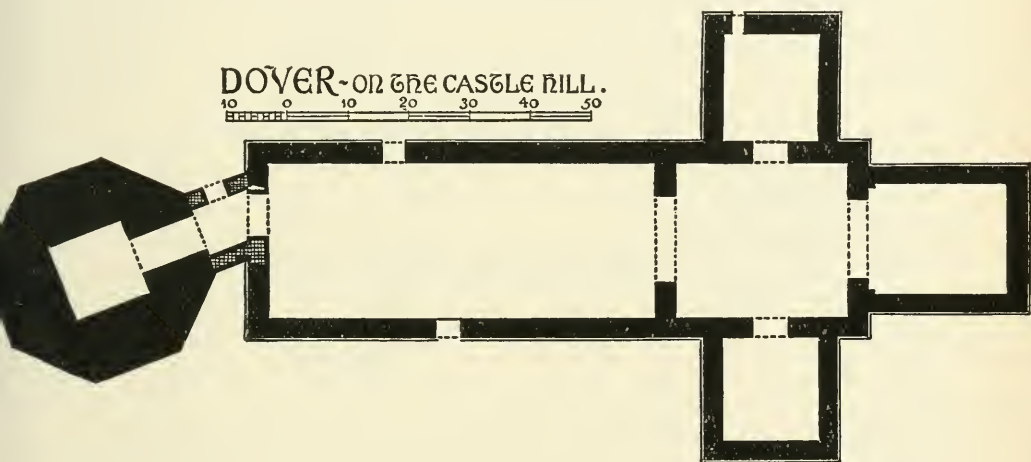


FIG. 24.

Its faces were not to the cardinal points, and they wanted their church to turn to the east, so they got over the difficulty by putting between the tower and the west end of the church a building which formed a porch below, and probably a dwelling-place above. The side arches of the central tower are insertions of the twelfth century, made, as it appears, because the original openings, whatever they may have been, were not thought large enough.

The next example is St. Mary's, or the larger church

¹ The equalisation of the arms of the cross was a further development reached in a few churches, chiefly of the largest

sort, but it was never general in England.

at Deerhurst (fig. 25).¹ It is a good deal less than that at Dover, but the plan shews that in its last Saxon form it was a two-towered church of like plan to that last described. The central tower has gone, but the western one remains, and is a very remarkable building. It is described in the additional note B. The plan of the church shews the side walls of the nave black as still existing, which in fact they do, but only the upper parts of them. They are carried by arcades of thirteenth century work. These may take the places of earlier ones, and the church may, as was suggested before, have had aisles at its first building. If it had,

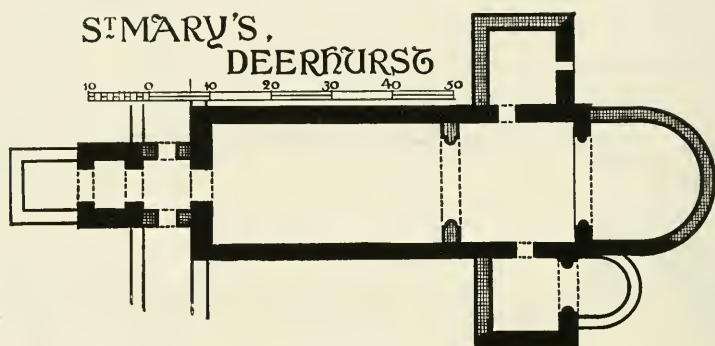


FIG. 25.

I suspect that it lost them as Brixworth did, and was without when the east part of the church was put into the form shewn on the plan. That seems to have been about the beginning of the eleventh century, but it is certain that there is earlier work in the west end and tower, and probable that there also is in the side walls of the nave. The presbytery is round-ended and wide-arched, as at Worth, and there is an arch in the east wall of the south transept leading to an altar space beyond. In the corresponding position on the other side is a doorway which has led to some chamber outside.

¹ The plan shews parts which now exist only in the form of foundations below ground. They are taken from a plan made in 1860 under the direction of Mr. Slater, the architect, who was then carrying out considerable alterations on the church. It is now in the collection of the Society of Antiquaries.

The southern apse was not found by Mr. Slater, and is put in on the authority of my much regretted friend, Dr. J. H. Middleton, who found evidence of it. To him I also owe a plan of the smaller church at Deerhurst made on its first discovery in 1885.

The openings from the tower to the transepts on the floor lines are very small doorways, but there is an arch higher up on each side which looks as if it might have opened from an upper floor or gallery.

The only visible part of the church at Repton which is of Saxon date is the presbytery. There was more till 1854, when the "restorers" pulled it down, and it is only from foundations which were uncovered in 1887, when something else was done to the church, that we know its old form. I have to thank Mr. Irvine for a copy of the plan (fig. 26) and one of a paper which he wrote upon the church in the *Archæological Association's Journal*. The plan revealed very closely resembles that at Dover, and there can be no doubt that, although the presbytery was inhe-

herited from something earlier, the transepts, and what was between them, and the body of the church, are near in date to the work at Dover; and that there was a central tower. We can not tell, certainly, whether

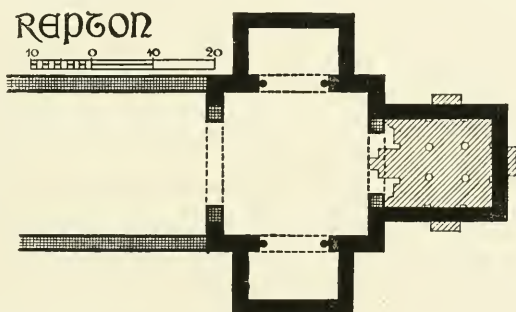


FIG. 26.

there was also a western tower; but, considering the importance of the church at Repton, it is likely that there was. Repton was the see church of Diuna, the first Bishop of Mercia, who was buried there in 658. St. Chad moved the see to Lichfield in 664, but Repton continued to be the seat of a famous monastery of men and women ruled by an abbess, after the manner of that of St. Hilda at Whitby. In 874 the Danes destroyed the monastery, and they occupied the county for a hundred years. At the time of the Domesday Survey Repton had a church and two priests.¹ What happened at Repton seems to have been the same as happened in many of the places where monasteries had been founded in the first days of English Christianity. The monastery remained till it was harried by the Danes. Then the

¹ I take these dates from Dr. Cox's *Churches of Derbyshire*.

building stood in ruins for a time, greater or less as it chanced. But the tradition of the sanctity of the place remained; and as soon as peace returned, the Christian people gathered round it again, and enough of repair was made to permit the services to be carried on until a rebuilding was possible. The Danes could not take away the lands with them, and, though the monastery was not restored, the real property with which it had been endowed was still considered to belong to the Church, and allowing for some losses by usurpation would produce a good income for the clergy who served there. But these were often married men, and it was not to their interest to share with many, and so it sometimes came about that the remains of an endowment intended for a community were taken by a single parish priest. The abuse grew up by degrees; and although some strict moralists, or disappointed men, may have complained of it, it probably excited no more scandal than did the pluralities of the eighteenth century. A notable example is afforded by Hexham, where Wilfred's great monastic foundation came to be a rich family living passed on from father to son for generations. It continued so until the twelfth century, when the last of the family, turning Cistercian monk, gave up what by long custom had become his rights, and a new foundation of regular canons was made. If we had the means of tracing the story of Repton it would probably be very like that at Hexham, though there did remain two priests there.

I differ from my friends, Dr. Cox and Mr. Irvine, in believing that the crypt at Repton is of the first monastic time. But I think this only of the crypt and the lower part of the presbytery walls within which it stands. The walls above are thicker than those below, and stand partly upon the vault, which they could not do if it had not been there first. They probably belong to the rebuilding on the cross plan, which can not well have been done when the heathen Danes were in possession, and so must have been late in the tenth, if not in the eleventh, century. The crypt seems to me to have formed no part of the later Saxon church, as if the memory of it had been lost during the time of ruin.

Professor Willis understands the contemporary metrical

description of the church which Ethelwold and Elphege built at Winchester at the end of the tenth century as telling of a central tower and aisles. This is a combination of the use of which in England I can find no evidence earlier than Edward the Confessor's work at Westminster Abbey, which we are expressly told was in a new fashion; and with full respect to the opinion of Professor Willis, who was an adept in the interpretation of architectural documents, I think he was wrong in attributing it to Winchester sixty years earlier. There probably was a central tower, although the line,

"Per quadrasque plagas pandit ubique vias,"

might, as we have seen, apply to a western one. Professor Willis gets the aisles from the couplet—

*"Partibus hoc Austri firmans et partibus Arcti
Porticibus solidis arcubus et variis;"*

but the passage goes on—

*"Addidit et plures sacris altaribus aedes
Que retinent dubium liminis introitum
Quisquis ut ignotis deambulat atria plantis
Nesciat unde meat, quove pedem referat
Omni parte fores quia conspiciuntur aperta
Nec patet ulla sibi semita certa via
Huc illicque vagos stans circumducit ocellos
Attica Dedalei tecta stupetque soli
Certior advenat donec sibi ductor et ipsum
Ducat ad extremi limina vestibuli &c."*

It is a fair sample of the poet Wolstan's fustian, and the reference all through is not to the church, until the puzzled traveller gets to the door in the last line quoted, but to the forecourt; and the *portici*, or chapels, to the north and the south, were connected with its side walks, either forming them or being beyond and entered through them. The church itself may have been an aisleless cross church of the Dover type. But I gather nothing certain about it from Wolstan's lines, except that it had a tower, which may have been central, and a crypt.¹

¹ It may be noted that the churches of the abbays of Ely and Bury St. Edmund's, when rebuilt on a very large scale in the twelfth century, were each planned with a central and one western tower. Both replaced Saxon churches,

and it seems likely that this arrangement of towers, which is not according to the usual practice of the twelfth century, continued a tradition of earlier churches of the Dover type.

There were smaller churches following generally the Dover type of plan, but with only the central tower, and, so far as we can tell, no buildings of any sort outside the west end. Such were Stanton Lacy in Shropshire and Wooten Wawen in Warwickshire. And sometimes, as happened also later, the central tower was used without transepts, as at Langford, Oxfordshire; Great Dunham, Norfolk, and, I think, originally at St. Mary's, Guildford.

In none of the examples mentioned so far does the cross plan shew itself much inside the building. Even at Repton, where the transept arches are the largest, they are

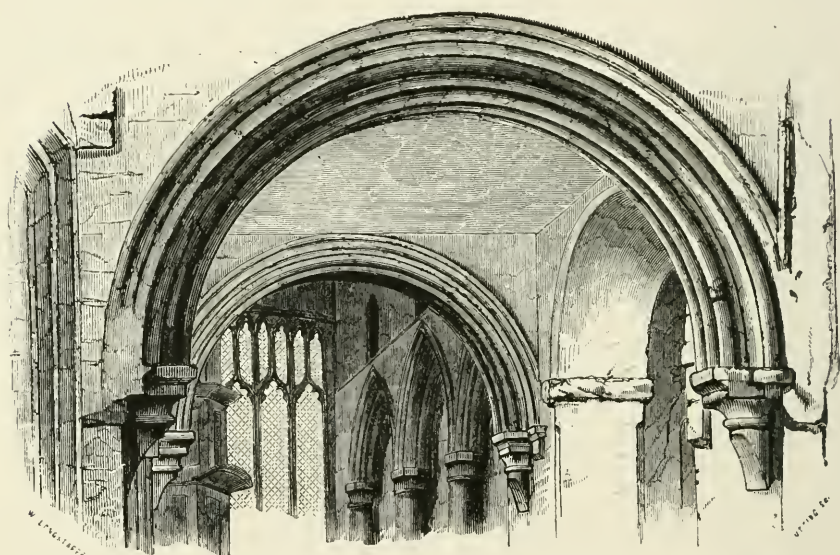


FIG. 27. NORTON, DURHAM.

still only openings left in the walls which rose direct from the ground. But the plan of a tower standing on four piers and open equally on all sides was reached before the end of Saxon time. There is one such at Stowe in Lindsay, which we have reason for dating about 1052; and one at Norton in Durham is described and illustrated in the twelfth volume of our *Journal* (fig 27). The early work is a good deal mixed up with later, but the original intention is clear in each case.

The common Italian pattern so much used for western towers was not suited for central towers, which had to be

of a much broader proportion; and the builders of them, and of the towers of the next type of church to be discussed, which also were broad, made some efforts to break away from tradition, which are interesting, though the architectural result is not generally very successful.

This seems to be the right place to mention Mr. Park Harrison's curious discovery at Christchurch, Oxford, where he has found a Saxon wall with three small arches in it, and outside it the foundations of three apses into which they opened. Mr. Park Harrison, who claims for the work so early a date as 727, interprets it as being the east end of a small church with a nave and aisles, or rather three parallel and nearly equal naves, the whole being about 25 feet wide between the walls. We have nothing like this in English work elsewhere, and I venture to offer another solution which at least brings it nearer to what we have (fig. 28).

By treating it as on the Dover type of church we get what, but for its very small size, might almost be taken for a twelfth century plan, when transepts with apsidal chapels to the east of them were common. But we have found a Saxon example of such a chapel at Deerhurst, and there is a very Saxon look about the Oxford remains. I think, therefore, they are Saxon, but they must be late. Perhaps as early as 1004, when we are told some work was done there, but not earlier.

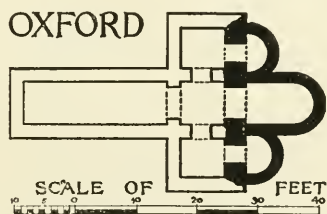


FIG. 28.

I now come to a type of church which, so far as I know, has not been noticed before. In this the tower is not an appendage at the west end or in the middle, but itself is the body of the church. The church of St. Peter at Barton-on-Humber is a large mediæval church with a west tower, which has been recognised as Saxon ever since Rickman's day. West of the tower is a small building also Saxon work, with which the illustrators have played strange tricks. Britton omits it altogether in his view of the tower, and so does whoever is responsible for the cut in Parker's "Rickman," and Mr. Weatherley, in Sir Gilbert Scott's *Mediæval Archi-*

ecture, has given it a west door, which it has not, and never had, and made it into a big porch.

I visited the church in 1889 with Dr. Fowler, and after careful examination became convinced that this tower, with the western appendage, and a corresponding eastern one, of which we thought we could see some vestiges in the west wall of the present church, was really the

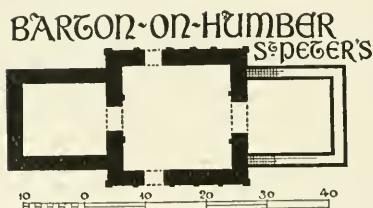


FIG. 29.

original church. I give a plan of it (fig. 29), which makes it not the smallest of the churches we are considering. The walls are thin for a tower; but that is common in Saxon work, the builders of which, though generally devoid of archi-

tectural imagination, did their work better than those who came after, and their thin wall stands where the Norman thick one has often fallen. We see here that the tower has an opening on each face of the ground floor, those on the east and west being arches of some size, and those on the north and south only doorways. This is as in the early porches we have considered, except that here the doors are in the western parts of the sides, and not in the eastern, as they generally are in the porches, to bring them well into the arcade walks. The flanks of the tower are elaborately ornamented after a rude fashion, and shew no indication of any butting arcades. The porch theory had to be given up, though it would have been pleasant to find one of these porches with the baptistery still standing. Going inside we found that the east and west arches are ornamented with rib work on the sides towards the tower, but are without it on the outsides, thus shewing that the tower was the place from which they were expected to be seen. Over the eastern arch is a stone slab in the wall, and on the upper part of it a face is carved in relief. All things seem to point to the tower itself being the place of assembly, the western building probably, as in the basilican plan, the baptistery, and the lost eastern building the presbytery. The slab over the presbytery arch I believe to be one of the earliest examples we have of

the great rood, the face only having been carved, and all the rest executed in painting, which has perished. The tower seems to have been raised at some time soon after its building.

I found another church of the same type at Broughton (fig. 30), a few miles away to the south on the great Roman road. It has the east and west arches, but only the south side door, which, as at Barton, is well to the west of the wall. There is no baptistery, but the west arch leads to a circular stair-turret like those at Brixworth and Brigstock in Northamptonshire. The work is getting near to the Norman in detail, and I should put it at about 1050-60.¹ The Barton church may be a few years earlier.

There are some reasons for believing that the well-

BROUGHTON, Lincs.

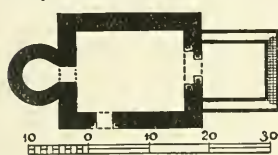


FIG. 30.

EARL'S BARTON

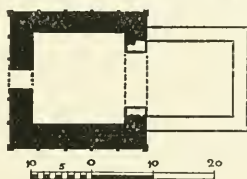


FIG. 31.

known Saxon tower at Earl's Barton (fig. 31), near Northampton, may have been a church of the same sort. It is broad and large, and its eastern corners are completed down to the ground, as if what building there was to the east of it had been narrower than it is. The one door is to the west, and there was an unusual number of windows in the lowest story of the tower. Unfortunately the east arch no longer remains, a later and no doubt larger one taking its place. The ornamentation of this tower, though it is much more elaborate, comes nearer in character to that of its name-sake on the Humber than to any other I know.

¹ Since this paper was read at Canterbury, Dr. Fowler has learned from enquiries made at Broughton that some years since, when the church was being repaved, the foundation of a

square chamber, just east of the tower as the plan shews, was seen. I am very glad to have this information, which raises my theory to a proved fact.

There is another large and much ornamented tower at Barnak (fig. 32), near Northampton, which I have been rather tempted to think a church in itself, and the existence of what look like seats of honour on its west, north, and south sides seem to mark it as being a place of meeting, and something more than a bell tower attached to a larger church. But the east corners appear to be united with the end wall of a building wider than the tower, which can scarcely be other than the nave of a church. And the tower arch, which is original, is wider than is commonly found, and than we should expect if it had opened into a presbytery.

Altogether, the plan is a very curious one, and needs explanation. I have to thank Mr. Irvine for the use of his careful drawings of both Earl's Barton and Barnak.

One interest of the "tower" churches is that they seem to be the beginning from which have developed the churches of Denmark and the Baltic islands, with their broad, short naves, sometimes with pillars in the middle, but always without aisles. I incline, therefore, to associate them with the Danes, and the positions of them justify this. But whether they be a few outlying examples of a foreign fashion, or the Danes took the fashion as they found it here, and developed it further at home, may be questioned. I think the latter more likely. The period between the acceptance of Christianity by the Danes and the building of these churches was scarcely long enough to allow of the growth of a Danish national type of church plan, though one did come afterwards.

The subject of the arrangement and furniture of the Saxon churches is too large to be dealt with fully at the end of a long paper. They were very different from what we inherit to-day from the later middle ages. The custom of making living chambers in the towers and roofs and other possible places about the churches seems to have been general. And perhaps this was the path by which the Latin *monasterium*, meaning a house wherein monks lived in seclusion, led to the English *minster*, meaning a church accessible to all men.



FIG. 32.

Western galleries were common, and the doorways leading to them from the towers may often be seen, as at Dover, at Bosham, and at Alkborough in Lincolnshire—three churches of very different forms, but all of late date. I do not remember to have found evidence of such a gallery in a very early church, except at Jarrow, which seems to have had one. But the west end¹ there has been so much altered that it can not be said that any of it is part of the first work. It may be that these galleries were used for the night offices by men who lived in the towers and in lofts connected with them, and who could in that way enter the church without going downstairs, or down ladders, which was then the more common use.

The church at Brixworth, and St. Mary's church at Deerhurst, have each a window looking from a chamber in the tower into the church. The windows are high up, and the care and cost bestowed upon them shews that they were important in some way. Windows of simpler treatment are found in the like position in some other churches. They were not to admit light into the churches, and I think it not unlikely that they also may have been part of an arrangement for saying the night offices without going below, the chambers from which they opened being used for what may be called night quires. The windowed chamber is an earlier contrivance than the gallery. Deerhurst had both, but there is no appearance of there ever having been a gallery at Brixworth.

I believe the carrying up of the early west porches into the tower form was quite as much to provide dwelling-places as for the accommodation of bells, and that this, with the making of the quire chamber, if I may call it so, was an addition to the earlier churches made before their destruction by the Danes. This point is considered more at large in additional note B. The west gallery was in general use in the tenth and eleventh centuries, and was probably introduced at Deerhurst when the church was almost rebuilt and converted to one of the Dover type, of which the western gallery forms a part.

¹ *I.e.*, of the present chancel. The tower, now central, is generally taken for early Norman work; but I suspect that there is in it something of a

Saxon tower, which had itself grown from the early west porch, as seen at Wearmouth.

Remains of fittings after so long a time can not be many. But there is something left besides the crosses and grave-stones which have chiefly attracted the attention of antiquaries. Screens and seats have already been mentioned. There are some remains of altars; and some fonts, which seem to be of Saxon date, are still in use. So many sundials are left that we may almost assume that every church had one. They were made with little science, and their indications were neither accurate nor regular; but, such as they were, they served to mark the divisions of time, and were not mere architectural toys as the sundials of to-day are.

If we apply what we have been able to learn of the dates of the buildings through their plans we may go a little way—but yet, I think, only a little way—towards the dating of architectural detail.

We have been told in I know not how many books and papers that the use in a building of *long and short work*, which means quoins or pilasters formed of stones placed alternately flat and upright, is the surest evidence of Saxon date. New long and short work is very common, but it is not found in those buildings which we have reason to place at a very early date. We may therefore infer that those buildings in which it is found are later than the others, although we may not be able to say at what date this fashion came in.

Ribwork, which is given as another test, is generally only an arrangement of long and short work, and therefore must be dated with it. But there is outside the presbytery at Wing, which by its plan seems to be early, another kind of ribwork made of the material and in the ordinary courses of the walling. When new it was probably some way finished with plaster.

Windows played equally without and within are said to be peculiarly Saxon. Such windows, when found complete, have the actual window opening pierced in a thin slab of stone, or a wood board placed in the middle of the wall between the two plays. There is a window of this type in the little church at Bradford-on-Avon. But the few windows which remain in buildings which we have assigned to the seventh century are played only on the inside, and the window filling, whatever it may have been,

has been at or near the outside face of the wall.¹ Some of the latest Saxon windows have also no outside splay, but these are easy to distinguish by their resemblance to Norman work.

All through Saxon times doorways were formed straight through the wall without any splay or rebate. Sometimes a rebate has been cut afterwards, as at Barton-on-Humber, where only the north door, which seems to have been blocked soon after it was made, has escaped alteration.

Herring-bone work is a method of laying rubble in courses of stones inclined to the right in one course and to the left in the next. The Saxons used it, and so did the Romans before them, and the Normans² after them. It can not be taken by itself as a test of date. Stonework turned in the lathe was used by the Romans, and after them by the Saxons, quite to the end of the time when their buildings have a special character. It seems never to have been used by the Normans, and may therefore be taken as indicating Saxon time, but, till we know more about it, not any special period.

The *triangular* arch, as it is called, was very much used in late Saxon work, but some examples seem to go as far back as the eighth century.

The Saxon builders would use Roman detail when they could get it, which I do not remember to have found later men doing. Therefore, the occurrence of Roman detail in a building may raise a suspicion of Saxon date.

For example, the tower arch at Corbridge, on the Roman wall, is a Roman arch complete, probably a gateway from some fort on the wall. Roman imposts are to be seen in the same position at Alkborough, Lincolnshire. There is a Roman pillar used up in the arcade before the presbytery at St. Pancras's, Canterbury. The font at Wroxeter is the

¹ Two of the three early windows which remain on the south side of Jarrow church have pierced slabs like the mid-wall slabs, but flush with the outside. Sir Gilbert Scott held these to be additions, though of Saxon date. Mr. J. R. Boyle, writing in the tenth volume of *Archæologia Eliana* considers them original, and ridicules the idea of their having been put in as a means of defence. I think Scott was right, and

that the defence was not against Danes and sea-rovers, but against the Northumbrian blasts, after the work of Benedict Biscop's Gaulish glassmakers had gone the way of all window glass.

² A good Norman example is in the nave of Kippax church, Yorkshire, which has been called *Roman* because of it, but which is of the twelfth century.

base of a large Roman pillar turned bottom upwards and hollowed out. As we have seen, the builders of the church in Dover Castle took over the Roman lighthouse whole to make their bell tower. And I believe the real cause of the preservation of the Roman gateway, called the Jewry wall, at Leicester, is that the builders of St. Nicholas's church there made use of it as part of their fore-building.

The meeting of the Archæological Institute at Canterbury in July, 1896, when the controversy about St. Martin's church, and visits to that of St. Pancras, to Reculver, to Lyminge, and to Dover, brought under notice some of the most important remains of Saxon church building that survive, has caused me to write sooner than I intended. I have had to discuss some buildings which I have not seen; and there are others which, if it might have been, I would rather have seen again before writing. But the ready help of my brother Antiquaries has let me see with their eyes what was beyond the range of my own. If a plan was wanted, or some point about a building needed to be looked to, there was nearly always someone able and willing to help. I am especially indebted to Mr. Irvine for freely opening to me his store, the antiquarian gathering of many years in many places. Like help from others has already been acknowledged, and of helpers whose names there has not been occasion to mention before I would now remember: Sir Henry Dryden, the Rev. C. R. Manning, Mr. G. E. Fox, the Rev. G. T. Harvey, Mr. W. G. Fretton, and the late Mr. R. J. Johnson, of Newcastle.

If the paper had been delayed longer it might have been more conclusive, or it might never have been written. I offer it as it is, and hope it may interest and perhaps help some who will carry on the study further.

ADDITIONAL NOTES.

A.—*On the Saxon crypts.*

Mr. Watkins, the then rector who examined the ground in 1841, says positively, in his account of it, that there was not any crypt within the wall of the apse at Brixworth. But I am not satisfied with the evidence as he gives it. The part of the wall at the east, where the

entrance to the crypt would have been, had been destroyed in making a grave. It is, however, possible that the crypt may have been intended and prepared for, but never actually made. Mr. Irvine, in the fifth volume of the *Journal of the Derbyshire Archaeological and Natural History Society*, has shewn that the crypt at Repton was built up within already standing walls, and lately Mr.

WING

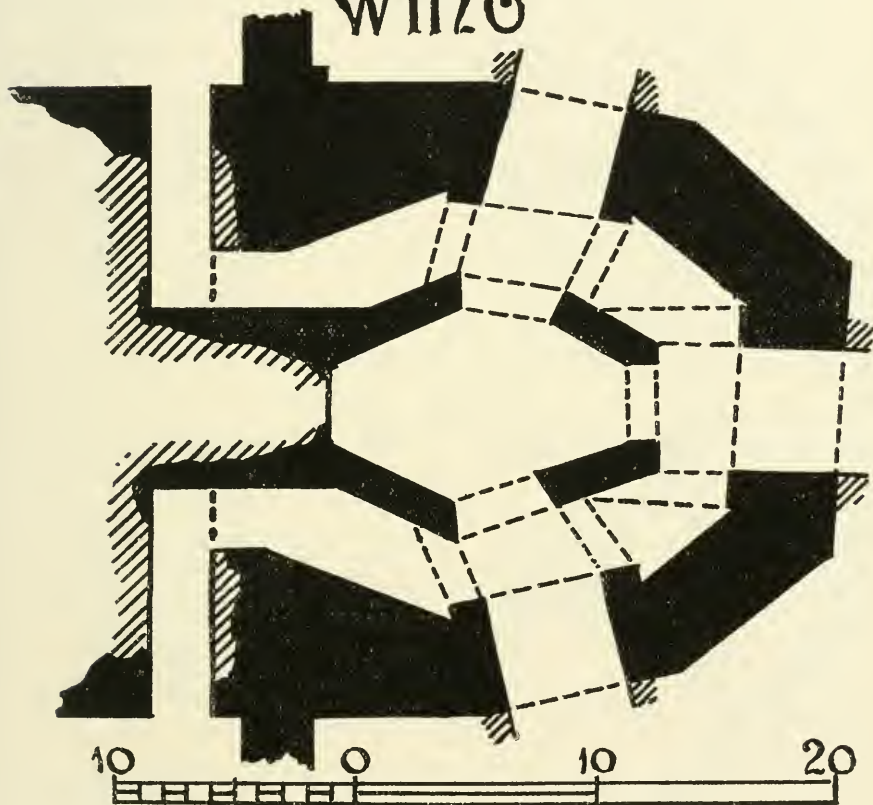


FIG. 33.

Hope, who accompanied me on a visit to Wing during the preparation of this paper, found evidence that the same had been done there. It is not likely that there was much difference in date, as the crypt has in each case been prepared for in the first building; but it may be that the men who could build the walls were not skilled to execute the vaulting required for the crypt,

and the work had to be put off until those who could do it might be had, and in the case of Brixworth deferred so long that the desire to have a crypt passed away.

About 990 Elphege, Bishop of Winchester, put a crypt into the church which Ethelwold, his predecessor, had consecrated only ten years before. And he consecrated it again, perhaps because the high altar had been moved. This, besides illustrating the habit of building crypts within already existing walls, shews us the use of one

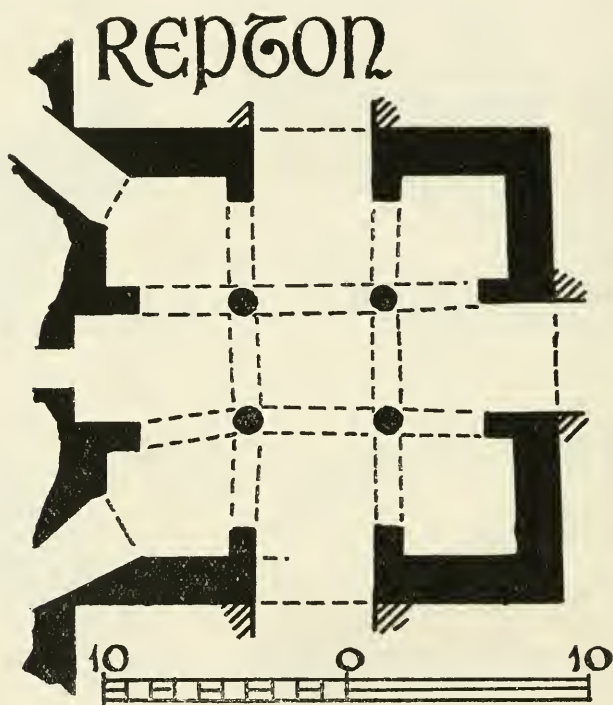


FIG. 34.

in late Saxon times. We should indeed expect this, for crypts were still built in the twelfth century. But whether the tenth century crypt at Winchester was nearer to the Italian *confessio*, as we have it at Hexham or Wing, or to the vaults of Worcester or Rochester, we have nothing to tell us. It stood between them in the line of tradition. The crypts at Wing (fig. 33) and at Repton (fig. 34), and what there is of that at Brixworth (fig. 35), differ considerably in form, but have much in

BRIXWORTH

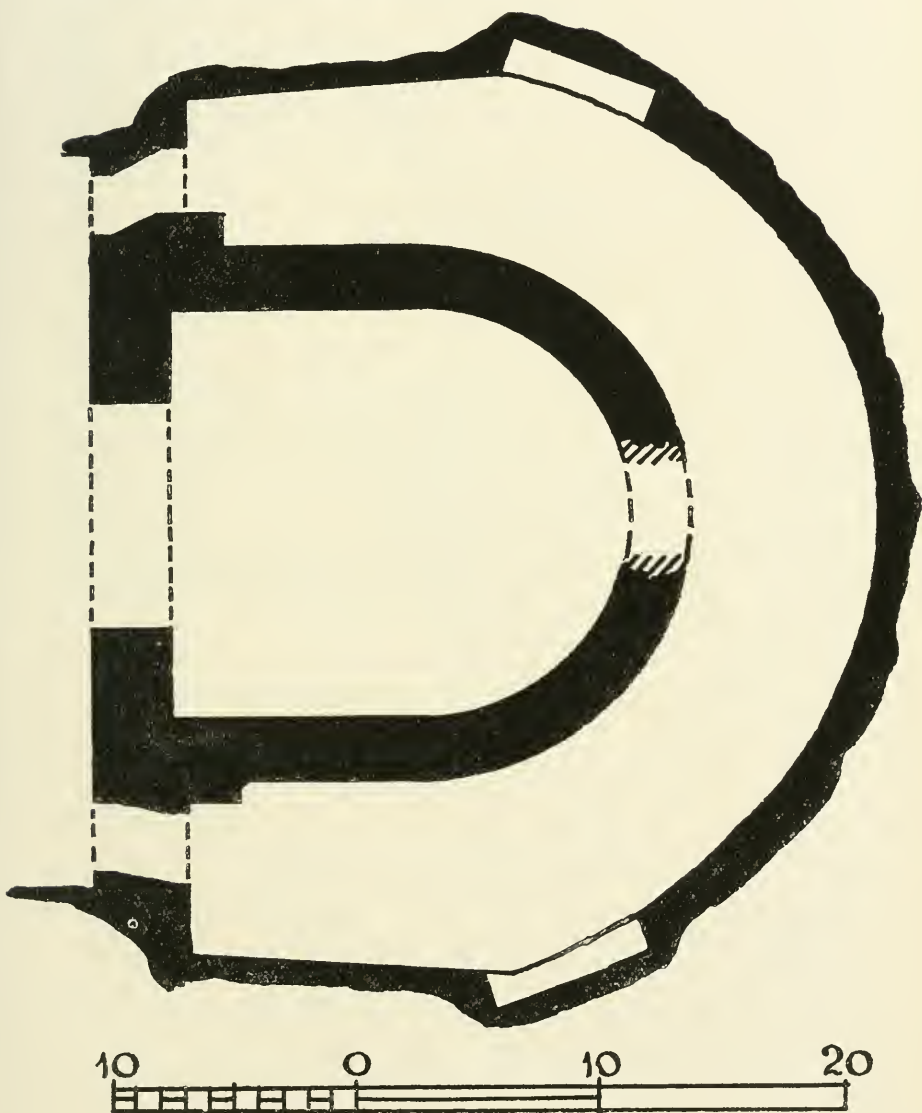


FIG. 35.

common: and I think they can not be far apart in date, which the last-named seems to fix in the seventh century. It will be seen that all keep the form of a central chamber with a passage round it reached from the upper church by a stair at each end, although at Wing the walls of the central chamber have become piers with openings between them, and at Repton it is only marked out by four pillars at the corners. Each, too, has had *arcosolia* or arched chambers intended to receive tombs radiating outwards from the passage. Of these there were three—towards the east, north, and south—at Repton and Wing; and two—towards the north-east and south-east—at Brixworth.

The crypts at Hexham and Ripon have each a place provided for a burial, but it is quite different in form from those for which I have ventured to appropriate the name *arcosolia*. It is a narrow, passage-like chamber running westward, and only just wide enough to receive a coffin. The burial chamber at Ripon was turned into a passage of entrance to the crypt at some time during the later middle ages, which so disguised it that I did not discover its real character until 1892, when the Dean and Chapter kindly allowed me to open the ground to see if there had been a second stair to the east, as I suggested there might have been in a paper written ten years before, and printed in the thirty-ninth volume of our *Journal*. The result of that search is recorded in the *Proceedings of the Society of Antiquaries* for June 16, 1892, where there is a corrected plan here, by permission of the Council of the Society, reproduced (fig. 36), together with our own, of the Hexham crypt (fig. 37). Our digging proved that there had never been any grave where I had suggested that of St. Wilfred might have been, but the discovery of what was certainly intended for a burial chamber only a few feet further to the west, and agreeing, as well as the other, with Bede's description of the place *juxta altare ad austrum* (Ecc. Hist., l. iv, c. 12), leaves no room to doubt that it was not only prepared, but used as Wilfred's resting place. That it ever was so must have been forgotten before the Churchmen of later times turned it into a passage. There is no evidence that the burial chamber at Hexham was used; but as it had not been for the founder, it very likely would be for one

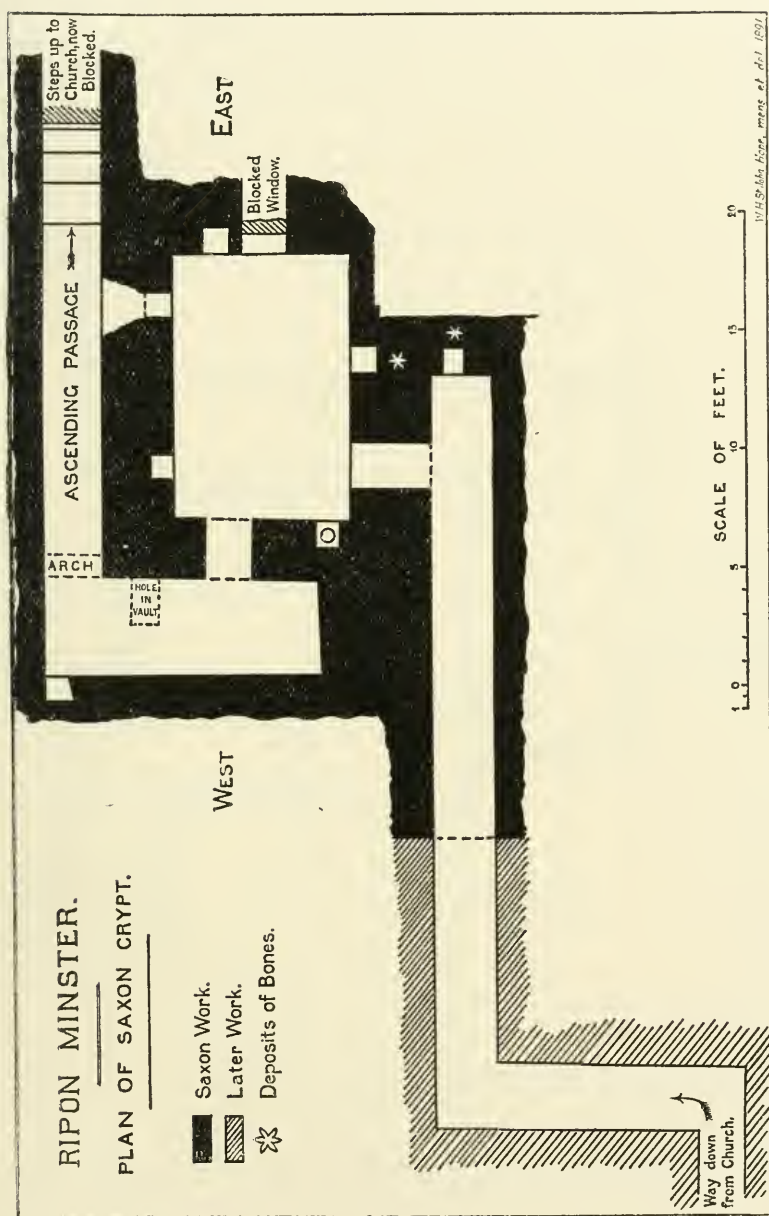


FIG. 36.

of his early successors. It, like that at Ripon, is now the entrance to the crypt. I do not know of any more Saxon crypts than those here mentioned, but there may yet be others forgotten and inaccessible, and perhaps turned into burial vaults.

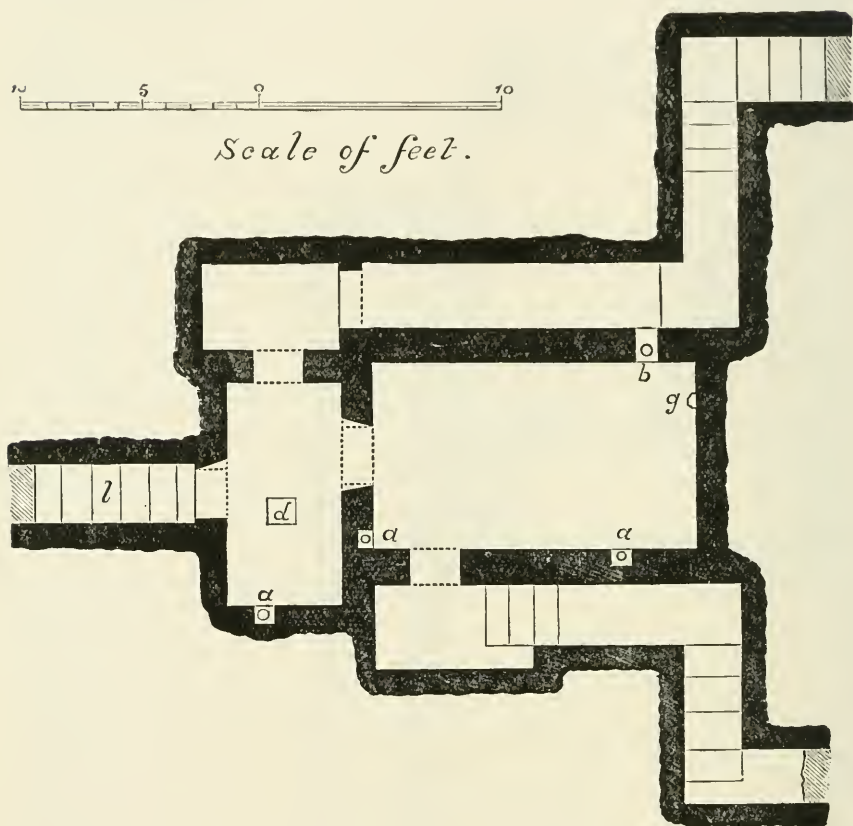


FIG. 37. CRYPT, HEXHAM.

B.—On Dwelling Places in Churches.

Several times in the preceding paper reference has been made to the close connexion, and almost intermixture of chambers intended to be lived in, with the Saxon churches. The matter is curious; and as it has had very little attention directed to it before, I add here a note with some more detail than could conveniently be

given in the paper itself. To the end of the Saxon time it was usual to make living rooms in the towers and roofs of the churches, but the evidence of it is clearest in the fore-buildings of the early monastic churches. That at Deerhurst gives more points than are found together in any other single monument, but the parallels of all, except the division of the two lower stories of the tower, may

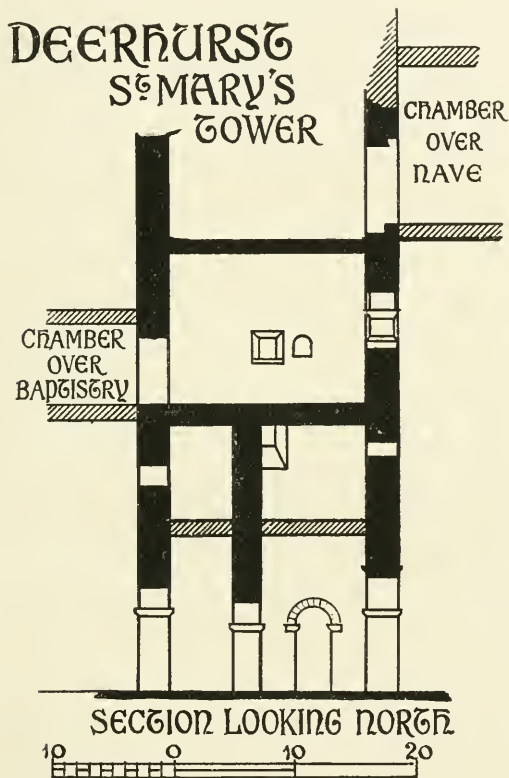


FIG. 38.

be found elsewhere, and nearly all at Wearmouth and Brixworth.

Here is a section of the tower of Deerhurst looking north (fig. 38) with later mediæval work left out and indications given of missing parts, of which those that remain supply the evidence.¹

¹ The section is based upon one by the late Mr. R. H. Carpenter. There is a careful description in a little book, *Deerhurst, a parish in the Vale of Glou-*

cester, by the Rev. G. Butterworth, which I found very useful on my last visit to the place in 1890, when my attention was given chiefly to the tower.

The tower is considerably larger from east to west than from north to south, and on the ground and second stories is divided into two unequal parts, the eastern being the larger. The eastern division has formed the usual porch of entrance from the fore-court with an arch eastwards towards the church, and two small doorways north and south from the covered walks of the fore-court. These doorways were destroyed in the thirteenth century, or later, when the walls were cut away and pointed arches as wide as the chamber itself inserted. On the west an arch rather lower than that towards the church leads to the western division, which was not the baptistery, but a sort of vestibule to it. The baptistery itself stood, in the usual way, west of the tower and in the midst of the fore-court. A doorway of the thirteenth century now fills up the arch between it and the tower, which gives us the latest date up to which it can have stood.

Ascent to the upper parts of the tower must have been by wooden stairs or ladders in the western division. The western room on the second story probably had no use except as a landing. It received only a borrowed light from the baptistery, which equalled in height two stories of the tower. The eastern room was entered by a door from the other. It has windows on the north and south sides, and a triangular opening towards the church on the east. In the same wall, towards the north side, is the doorway which led to the gallery in the church, and which, I think, is an insertion of the tenth century, or later.

The third stage is now divided, but was originally one room, and that, as appears by the treatment of its details, an important one. I have already suggested that it may have been used as a night quire. On the east is the very remarkable two-light window towards the church already mentioned.¹ There are windows in the middle of the north and south walls, and close by each is a round-headed recess very like those on the walls of the

¹ The large stone tablet over this window on the church side, which looks so much as if it should have an inscription upon it, and has generally been a puzzle, very likely had an inscription, but only a *painted* one. It may have had a

picture. Its position is just below where the Saxon ceiling was. The two tablets with angular tops by the presbytery arch were also probably painted, either with lettering or something else.

crypt at Ripon, and I believe, like them, intended to hold lights.

In the west wall is a doorway now towards space, but originally leading to an attic in the gable above the baptistery. This room can not have been very convenient, but the treatment of its door-case marks it as one of some importance. Perhaps it was the abbot's room.

Only part of the fourth stage remains, but enough to shew that it was a single room like the one below; and on the east side, where the wall remains higher than elsewhere, is a doorway which led up one or two steps into the space between the ceiling and the roof of the nave. This seems to point to that loft having been used as the general dormitory.

The tower must have gone up at least one more story, where the bells would hang, but that has all been replaced by later work.

It has been said before that there are reasons for believing that the church at Deerhurst had aisles, and lost them; and one reason is that on each side of the nave in the Saxon wall, above the thirteenth century arches, is a three-cornered window like that from the second stage of the tower to the church, and looking as if it had served as a sort of squint from some chamber outside, which chamber is more likely to have been an attic in the roof of an aisle than anything else. If any such attics existed at Deerhurst there must have been separate access to them from the church or from outside, as they could not be reached from the tower.

We have seen that in the late example at Nether Avon attics were formed in the roofs over the covered walks of the fore-court (fig. 11). If such existed at Deerhurst the marks of them, and of the way to them from the tower, were lost when the side walls of the entrance porch were altered.

At Wearmouth and at Brixworth the lower parts of the towers shew clearly that they are older than the upper, but I have not found any such appearance at Deerhurst, and therefore would date it later than their earliest parts; when they had been raised and the loftier tower had come into fashion. But this must have been within the early monastic period of the churches; that is, before their destruction by the Danes, and there is reason for

placing all this work in the eighth century or the early part of the ninth.

Provision of dwelling rooms seems to have been made in churches of every type described in the preceding paper. It seems to have nearly always been done in towers, and there is evidence of it in other places. Sufficient examples have already been mentioned to prove this, and I will add only two more. The "tower" church at Broughton had a chamber over the presbytery, the doorway to which from the tower remains; and at Brigstock, in Northamptonshire, an eleventh century church of nave and presbytery, with a west tower, has a doorway from the tower to a loft above the nave. In both of these cases a stair turret has been added on the west of the tower for the convenience of those who lived there. We find the same in a few other places, but not many. Brixworth is one, and there the turret stands on the site of the old baptistery, which must have been taken down to make room for it, if it had not gone earlier. Here the stair is of stone and may be original, but generally the stone turret has contained a wooden stair. I think these turrets belong to quite the end of the Saxon time. All that I have seen have been added to the towers by which they stand, and that at Broughton is added to a building which itself bears evidence of very late date.

The floors of the upper chambers seem to have been made of timber filled in between and covered with plaster, a method inherited from Roman, and passed on to mediæval times. Mr. Irvine found some traces of such a floor over the chancel at Boarhunt, but the walls above it had not been plastered, which we should expect them to have been if there had been a living room there.

These upper chambers were probably chiefly sleeping rooms, and perhaps studies. The difficulty of service seems to unfit them for eating places, and there is no provision for cooking. There must, therefore, have been some buildings besides them, which may have been disposed round the fore-court. But we do not know what the plan of a Saxon monastery was like. The normal Benedictine arrangement existed, at least on paper, as far back as the time of Charlemagne, as the St. Gall plan bears witness, and it has the appearance of having been derived

from Roman sources. But there is no trace at all of it in monastic buildings here in England or, so far as I know, anywhere else older than the Confessor's work at Westminster Abbey.

The use of church towers as dwellings seems to have been general to the end of Saxon times, and, as mentioned in a former note, we find examples of it here and there up to the fourteenth century, or even later. Of these the most remarkable stood lately at Irthlingborough in Northamptonshire. It is much to be regretted that it does so no longer. A few years ago it was declared unsafe, whether truly or not I can not tell, and it was pulled down. In its place there is now a new tower, in some sort a copy of the old one, and called a "conservative restoration," but less worth, as evidence for the antiquary, than a good photograph or a set of measured drawings of the original. There is, however, a description of the building, with illustrations, in the Northamptonshire Society's book on the *Churches of the Deanery of Northampton*, which, after the loss of the building, has an enhanced value.

Late in the fourteenth century a small college was founded at Irthlingborough, and to accommodate it there was added to the church a western tower arranged for a dwelling house, which had so much in common with the early Saxon tower dwellings that their influence on its arrangements can scarcely be doubted. There was a porch of four doorways, not placed under the tower, but between the tower and the church, as in the Saxon example at Dover. The north and south doors were the entrances: the eastern led to the church and the western to the tower. There were three stories of living rooms above the bell chamber, and others below, some having fire-places. And at the foot of the tower were some other buildings, which, though they can not now be exactly appropriated, must have contained the dining hall and other rooms for the common use of the members of the college. Irthlingborough is within a day's walk of either Brixworth or Brigstock, and the building of such a tower at so late a date is strong presumptive evidence that the Saxon towers in those places were still inhabited at that time.

THE ROMAN COAST FORTRESSES OF KENT.¹

By GEORGE E. FOX, Hon. M.A. Oxon., F.S.A.

The Roman camp at Reculver, the first of those which will be described in the following notes, is situated upon the sea coast at a distance of three miles east of Herne Bay and nine north of Canterbury.

In the Roman period that part of Kent known as Thanet was an island divided from the mainland by a shallow strait which in later times was called the Wantsum, and into which the greater and lesser Stour and other streams emptied themselves. At the northern end of this strait and upon a rising ground, hemmed in by sea and marshland, lay the fortress, with perhaps some landing place or haven on the south side. Its position was a commanding one, and no vessel could pass through the strait without being observed from its walls. This condition of things changed gradually. The strait between Thanet and Kent became converted into marshland by the slow silting up of the channel, and the tides and currents of the North Sea during the same period undermined and carried away the loose sandy northern

¹ Read at Canterbury, July 25, 1896. The intention of the following paper has been to deal only with the structures to be found on each of the sites described, to the exclusion of such minor antiquities as may have been discovered within them; these antiquities being too often treated of at needless length by writers on Roman remains in Britain. With relation to the Roman period in our island there would seem to be only two branches of research that can afford results of any significance: firstly, the elucidation of inscriptions; and secondly, the systematic examination of structural remains with their details.

As an illustration of the value of this second branch, it may perhaps be permissible to mention the results achieved by the explorations (begun in 1864, resumed in 1890, and since carried on continuously) of the site of the Roman town at Silchester in Hampshire. In these explorations, although a very considerable number of objects in the various classes

of pottery, glass, metal, bone, &c. have been gathered together, their discovery has practically added but little to our knowledge of the period to which they belong. On the other hand, these same excavations have revealed, for the first time in this country, the plan and disposition of a Roman town with its walls and gates, its houses and streets, its temples, baths, and forum, showing in the varied character of the different edifices discovered within its enclosure the extent to which the Roman civilisation had been accepted by the native race, and affording indications, which had previously been only too scanty, of civil government as distinguished from military rule.

The plans of the three fortresses which illustrate this paper are drawn to a uniform scale. They are founded on the 25-inch Ordnance Survey maps, with additions derived from the works of Boys and C. Roach Smith, quoted in the paper.

shore until their action destroyed half the enclosure bounded by the Roman walls. Leland, in the time of Henry VIII, says: "Reculver . . . stondesth withyn a quarter of a myle, or little more, of the se syde." A survey made in 1685 shows that the sea had advanced to no great distance from the north wall of the camp, and in 1781 Mr. Boys, the historian of Sandwich, found that this wall, with the exception of a length of a few rods and the north-east angle, had fallen before the force of the waves. What further ravages have taken place may be seen by a glance at the plan copied from the Ordnance Survey of 1872. Fortunately, before it was too late, Mr. Boys was able to measure the area of the station, which was quadrangular, its greater length being from north to south. The space contained within the walls was 7 acres, 2 roods, 26 poles. The remains of the walls still stand to a height of 8 feet. In Boys' time they were 10 feet high.¹ They can be traced on the west side for a short distance behind the inn, the Ethelbert Arms, for part of their length along the south, and also on the east side up to the point where they have been destroyed by the sea. The south-east corner still exists, and shows a rounded angle unsupported by any tower. In fact, as far as can be seen, there do not appear to have been any towers whatever. The walls, with the exception of a patch here and there, are denuded of their external facing and exposed quite to the level of their foundation, which is composed of a thin layer of beach pebbles. The core is mostly made up of sandstone, which was procured from quarries near the site.

From excavations undertaken by Mr. Dowker (recorded in *Archæologia Cantiana*, Vol. XII., 1878) it would appear that the walls were, in their lower portion at least, built against the sides of the rising ground on which the camp was situated, and that they were 8 feet thick with two sets off inside, the upper 1 foot wide and 4 feet high, the lower the same width and about the same height. The inner face consisted of alternate layers of flint and sandstone. At present all the upper part of the wall is gone, it having been destroyed to the level of the ground within the station. Its original height is therefore not

¹ W. Boys in *Bibliotheca Topographica Britannica*, I, 83, MDCCCLXXX. MDCCXC.

obtainable. No trace of a ditch is to be seen. Possibly, a section of the ground in front of the wall would show whether such a defence had existed.

As to the gates there is no information. Mr. Dowker observed that the south wall trended inward from each angle, and conjectured that a gate might have existed near some central point in this wall. There may have been a gate where the modern road, traversing the station from west to east, crosses the east wall, and another gate at a similar point in the west wall, but all this is conjecture. Only excavation can decide the question, if it is not already too late.

Archdeacon Battely, who wrote an account in Latin of Reculver at the end of the 17th century (published after his death),¹ makes mention of the remains of buildings which must have been erected between the north wall of the fortress and the sea shore. In his account he speaks of brick foundations of some size with small vaults in them and of fragments of a tessellated pavement.

He also mentions that many cisterns were uncovered by the encroachments of the waves. These cisterns varied in size, but were similar in their method of construction. They were from 10 to 12 feet square and the same in depth, lined with woodwork of oak, the lining being constructed with posts and planks two inches thick, and the bottoms pugged with clay. They were not unlike tanners' pits, but in his opinion were cisterns for the storage of rain water, as the water derived from wells in the neighbourhood is brackish.

The suggestion of the learned Archdeacon that the boarded and pugged pits were used as cisterns for rain-water is a very plausible one; and although the position was dangerously exposed, it is possible that the remains of buildings mentioned by him may have been traces of the baths of the station. Such baths were occasionally outside the walls.²

Very little can be said of the internal arrangements of the fortress. Nothing Roman is to be found above ground. The Saxon and mediæval church, of which there are con-

¹ J. Battely, *Antiquitates Rutupinae*, &c. 1711.

² The baths of the station of Cilur-

num, on the Wall of Hadrian, are outside the station lying between its south wall and the River Tyne.

REGULBIUM (RECVLVER)



siderable remains, may occupy the site of the *prætorium*, but neither the fragments of masonry existing in this church nor the columns from it (now to be seen at Canterbury in the garden near the Deanery) can be considered Roman, as presumed by the late Mr. Roach Smith. The remains of the chancel considered by him to be part of a Roman building converted into a church in Saxon times, do not resemble in plan any structure likely to have been erected in a Roman station: on the contrary, they are exactly those of the chancel of an early Saxon church. The columns from this edifice do not taper from bottom to top, as erroneously asserted and incorrectly shown in an illustration in Mr. Roach Smith's book on *Reculver*¹ (such tapering being a sure indication of Roman work), nor have either their bases or capitals any resemblance to any known fragments of Roman architecture to be found in this country. There can be little doubt that the columns in question are of later date than the period to which Mr. Smith has assigned them. Probably they are Saxon imitations of Roman work.

The only mention of *Regulbium* in the Roman period is to be found in the *Notitia*, where it is named as garrisoned by the first Cohort of the *Vetasians* commanded by a Tribune. It must not, however, be supposed that from this single and late mention of the station that it was of late erection. Its simple line of mural defence apparently unsupported by towers either within or without, and the rounded angles, are, rather, signs of comparatively early date. There is an absence of tile courses in the walls: also the evidence of coins may be cited, though such evidence must be received with caution. Archdeacon Battely, in his account of antiquities found here, speaks of consular coins having been turned up, and mentions that almost all the Roman Emperors down to Honorius were represented, the coins of Tiberius and Nero being especially sharp and fresh, as if new minted.²

¹ C. Roach Smith, F.S.A., *The Antiquities of Richborough, Reculver, and Lympne*, 1850, pp. 197-198.

² It is commonly assumed that all the fortresses of the Saxon shore were erected as barriers against the Saxon pirates; but if their plans, and the details of their construction be accepted

as evidence, it will be seen that some of them may date from a period before the Saxons had begun to trouble the eastern and southern shores of Britain. It is to this earlier date that the foundation of Regulbium may in all likelihood be assigned.

Next in order and presumably in date stands *Rutupie* (Richborough), which now claims attention.

As *Regulbium* guarded the northern end of the strait separating Thanet from the mainland, so the fortress of *Rutupie* commanded its southern entrance. It was of far more importance than *Regulbium*, from the fact of its being the principal and oldest port of entry into Britain in the Roman period. The establishment of these two fortresses shows clearly that the strait just named was considered from early times the best and most direct way into the estuary of the Thames for vessels passing from *Gessoriacum* (Boulogne) or from any southern port.

The aspect of land and water has changed as much at Richborough as at Reculver, but in a different way. The waters of the strait have given place in both instances to fertile meadows; but at Richborough the sea, instead of encroaching, has retired, and the coast line is now more than two miles from the eastern side of the hill on which the camp is built.

The aspect in Roman times must have been totally different to the present one. The foot of the hill of Richborough was probably not washed by the open sea, though a broad channel may have flowed close beside it forming one of the southern mouths of the strait, while a narrow strip of salt marsh and sand-bank lay between it and the open sea. A large extent of what is now marshland, lying to the west of the hill, may then have been covered by the waters and so have formed the haven, making of the camp hill an island whose highest point was about 56 feet above high-water mark, judging from the present levels of land and water. The station stood on the highest ground of this island, where, on the east, it sloped somewhat abruptly to the water level. The sea channel on this side could not have hugged the hill very closely, as at no great distance to the south of the station on this same side, and in the low ground presumably near the shore, fragments of a Roman house were discovered in 1846, when the Ramsgate and Deal Railway was in course of construction. Ballast for this railway was taken from the slope of the hill between the camp and the site of this house, and in this operation many refuse pits were found, a pretty sure indication of dwellings in the vicinity which may have

here been scattered over the face of the hill. If any traces of such dwellings were discovered they have not been recorded.

On the high ground south of the camp was an amphitheatre, the remains of which were explored by Mr. Roach Smith in 1849. It was found to be elliptical in form, 200 feet long by 166 feet wide, with an external wall 3 feet 6 inches in thickness. A sloping bank of clay and mortar rested against the inside of this wall. Whether it was a base forming a support for wooden seats is not very clear, but it might possibly have served this purpose. There were three entrances to the arena.

But to return to the subject of the station. The area enclosed by the walls was estimated by Mr. Boys (who wrote of it in his *History of Sandwich* in 1792) at 5 acres, 3 roods, and 8 perches. It was a regular parallelogram, with the greatest length from east to west. The walls, in some places still about 30 feet high, may be seen to be of the usual Roman construction, viz., a core of concrete composed in this instance of boulders, sandstone, blocks of chalk and ochre stone with oolite and travertine occasionally, cemented with a mortar of lime mixed with shore grit, the external facings being of regular courses of squared grit and Portland stone. The lacing and bonding courses, consisting of double rows of tile, occur at somewhat irregular intervals. The width between these courses varies from 3 feet 3 inches to 4 feet 3 inches. Internally the facing appears to be of flint, and the lacing courses are single rows of tiles very irregularly spaced. The walls have, as a foundation, layers of undressed flints. Their total width is 10 feet 8 inches.¹

The measurements and details here given are taken from the north wall, which remains in a very perfect condition, but much of this wall, and most of what is still left of the others, is so completely buried in ivy as to render investigation difficult—well nigh impossible.

As before stated, the walls of the camp were on high ground. This is so on three sides—north, south, and west; but on the fourth—the east side—the wall ran at the foot of the slope of the hill, and the north and south

¹ See W. Boys, *History of Sandwich and of Richborough*, 1792, and C. Roach Smith, *Antiquities of Richborough, Reculver, and Lyne in Kent*, MDCCCL.

walls descended that slope to join it. Such was the case with the Roman fortress of Gariannonum (Burgh Castle) guarding the mouth of the river Waveney, where it flows into the lagoon behind Yarmouth in Norfolk. It has been questioned by some antiquaries if in either case, at Richborough or at Burgh Castle, a wall existed in the low ground, it being taken for granted that the slope of the hill was a sufficient defence on this side; but the discovery of the foundations of the wall in the low ground at Burgh, and the plan of Richborough by Mr. Boys, in which part of the east wall is shown, should be sufficient to refute a view so superficial of the methods of fortification employed by the Romans.¹ The hill on which the station was erected appears to have been much cut away on its eastern side, probably in mediæval times, and the materials of the wall removed by water carriage, as was certainly the case at *Gariannonum*. They have doubtless been re-used in the building of Sandwich. At each corner of the camp a large circular bastion, 18 feet 6 inches in diameter, capped the angle, while two square towers projected from the west and two from the north wall. The south wall shows one only, but more than half of this wall has disappeared. The east wall having also vanished nothing can be said of its arrangement, but it may be conjectured that it resembled that on the west side. A word must be said with respect to these square towers. It is supposed that they each contained a chamber, but there is nothing to show that this was so. The huge main wall of the camp is seen to pass uninterruptedly at its full height through what remains of the only tower

¹ With reference to the wall in question, Mr. Dowker, in a paper on Richborough published in the *Journal of the British Archaeological Association*, Vol. 40, p. 263, says: "Towards the east side of the Castrum Mr. Boys thought he could trace a wall flanking that side, which he has represented, in his plan, as below the cliff near the river; since then the South Eastern Railway has been laid near the spot, and portions of the overturned wall were met with during its construction. I have since ascertained that another large mass, 156 feet in length, lies in the bed of the river. It seems, therefore, probable that the walls

quite encircled the Castrum, and on the eastern side they may have been below the cliff."

Apollinaris Sidonius, in his description of the Saxons of his day (A.D. 438-500), calls them arch-pirates, attacking unexpectedly, carrying all before them, and delighting in the tempest and in the crash of the waves; and he speaks of their custom, before returning to their own country, of sacrificing every tenth man of their captives to the gods of the sea. (Ep. vi. 8.) Such enemies as these, it may well be imagined, would make short work of the garrison of any camp unprotected by a wall on the side most open to their attack, viz., the sea.

still standing, and it is evident that the projection outwards of the tower, from the unbroken face of the main wall (not more than 8 feet 6 inches), could not have afforded room for such a chamber. Unfortunately, this fragment of the only tower now left can be but imperfectly examined on account of the encroaching growth of ivy. It seems that these towers were merely rectangular projections built up solid with the walls for a certain height and bonded into them in the upper portion. They were, in fact, not towers as ordinarily understood, but rectangular bastions affording platforms on which military engines could be planted. The tower just referred to is to be found in the north wall. It shows a width on face of 16 feet 3 inches, with a projection, as before stated, of 8 feet 6 inches. Considering it only as a solid bastion, and not as a tower rising above the level of the camp walls, these measures would afford, if deduction be made for the width of the parapet, a solid platform 10 feet 3 inches wide by 16 feet 2 inches deep at the rampart level.¹ The circular bastions at the angles of the camp would each show a platform of a minimum diameter of 12 feet 6 inches.

Little is known of the gates of the fortress with one exception, viz. ; a postern on the north side. This is not in the centre of that side, but occurs at 250 feet from the western angle. The camp wall here is thrown forward for a distance of 10 feet 8 inches with a return 10 feet 2 inches long, covering a straight passage from the interior of the camp 15 feet in length. The aperture for entrance left by the return wall is but 3 feet 10 inches in width. A broad drain ran under the floor of this passage. From the exterior the whole arrangement looked like the towers to right and left of it, on a somewhat larger scale. The passage is not vaulted, but must originally have been covered by a roof; otherwise the rampart walk would have been interrupted at this point, which is not likely. If this passage was covered by a flat roof, the platform

¹ Clear indications (though indications only) of the position of the second tower, east of the gateway in this wall, and close to its broken end, may still be seen. The tile courses of the main wall are interrupted in the space originally

occupied by the tower, and the face of the wall here is more roughly built than the facing on either side. Traces of the bonding are still plainly visible of the sides of the tower with the main wall.

so obtained would have served the same purpose as the platforms of the other towers.

Another, and perhaps one of the chief gates, is supposed to have existed in the west wall 180 feet south of the north-west angle. It is a curious fact that the wall on either side of the supposed site of the gate trends slightly inward towards it. It may be remembered that Mr. Dowker noticed a similar disposition in the south wall of *Regulbium*. At the distance from the angle named, Mr. Boys found a heavy foundation of masonry, and Mr. Roach Smith, in his work on Richborough, gave an illustration of this foundation from a sketch made when it was uncovered by Mr. Boys. But neither Mr. Boys' description, nor the sketch published by Mr. Roach Smith, throws any light on whatever structure may have existed at this spot. Only careful re-excavation might possibly solve the problem.

It is worthy of remark that in Mr. Boys' plan of the fortress, if a line be drawn from the foundation just mentioned across the area parallel to the north wall, it would be found to fall at no great distance from the point in the east wall where the remains of that wall cease; a fact which suggests the existence near that spot of an eastern gate corresponding with the western one.

No southern gate has yet been discovered, though in all probability the break in the south wall, which corresponds nearly in position with the postern in the northern one, is suggestive of its site. There, again, excavation is much wanted, and careful excavation could alone show whether the fortress was surrounded by a ditch. At present there are no signs of so important a feature of the defence.

But the great subterranean concrete structure lying nearly in the centre of the area of the camp is the feature which gives a character and interest to this station wanting in so many other stations of larger size. The mass of material of which it is composed measures 124 feet from north to south by 80 feet from east to west. Its entire depth has not been made out, for a shaft sunk beside it to ascertain its depth was stopped at 30 feet from the surface by the rising of the water before the bottom of the concrete had been reached. The upper surface of this

mass of concrete overhangs the body of it by 12 feet on the east and west, and by 10 feet on the north and south sides, the overhanging portions being 5 feet thick. It thus presents at the ground level a floor 144 feet by 104 feet. The materials of the concrete consist of flint boulders bedded in mortar composed of lime mixed with coarse sand, small pebble, a very slight proportion of ground brick, and fragments of shell as if from sea sand. The mortar is intensely hard.

Upon the centre of the platform, or floor, a cross of masonry had been erected, the remains of which do not now exceed 4 feet 6 inches in height. In length from north to south it is 87 feet with a width of 7 feet 6 inches, the transverse arm being 22 feet wide by 47 feet long. The masonry of which it is composed consists of Kentish rag, oolite, tufa, and flint boulders, the mortar resembling in composition that of the exterior walls of the camp. The corners and ends were faced with squared blocks of tufa. Surrounding this cross and bordering the platform at a distance of from 15 to 17 feet from its edge are traces of a wall 3 feet 6 inches wide. Portions of this still remain to a height averaging 1 foot 6 inches. It seems to have been built of boulders with a mortar more sandy and poorer than that found in the other constructions.¹

The structure described occupied the position ordinarily assigned to the *prætorium* of the fortress, where the roadways from all the gates would meet.

Various theories have been hazarded as to the use to which this mass of concrete was put. In all probability that propounded by the late Mr. T. G. Godfrey Fausset is the correct one; it is well stated by him.²

After speaking of the huge concrete foundation as probably intended to support some large superstructure, possibly a pharos, which was never carried out as originally intended, he goes on to say: "The smaller remains—viz., of the wall which probably formed a complete rectangular enclosure upon the platform—are built so exactly and regularly at a short distance within that part

¹ The details here given are derived from Mr. Dowker's report on the structure in *Archæologia Cantiana*, Vol. viii.

² In a note at the end of Mr. Dowker's report.

of it which is not mere platform, 5 feet deep, but huge solid foundation, perhaps 30 feet deep, that we may conclude them to have been certainly built with knowledge of, and with reference to, the position and intention of the great substructure.

"This masonry . . . is clearly Roman, with its red mortar and its course of bonding tiles; and so is that of the broader wall of cruciform shape in the centre. May we not suppose these to have formed part of some temporary or substitutional building raised in lieu of the original colossal design? The cruciform remains have always puzzled investigators; their broadest part is too narrow to have formed the foundation of any building containing chambers, but so wide that we may well believe the solid stone wall which must have formed its upward continuation to have been of very considerable height. As a clue, perhaps not unworthy of consideration, I would suggest that this building may have formed a sort of internal buttress or support to a timber pharos built around it, as wooden houses are at this day built around and supported by their stack of chimneys in the centre. A cruciform shape would be the very form best calculated for stability in itself when raised to a great height, and for support to the timbers surrounding it. No one who has seen a Canadian town after a fire, can have failed to be struck with the curious effect of these central chimneys standing tall and alone above the ashes of the wooden buildings; and in this state let us imagine the watch tower of Richborough to have been left by the first Saxon attack after Roman departure. The tall masonry also would not be long in reaching its present level."

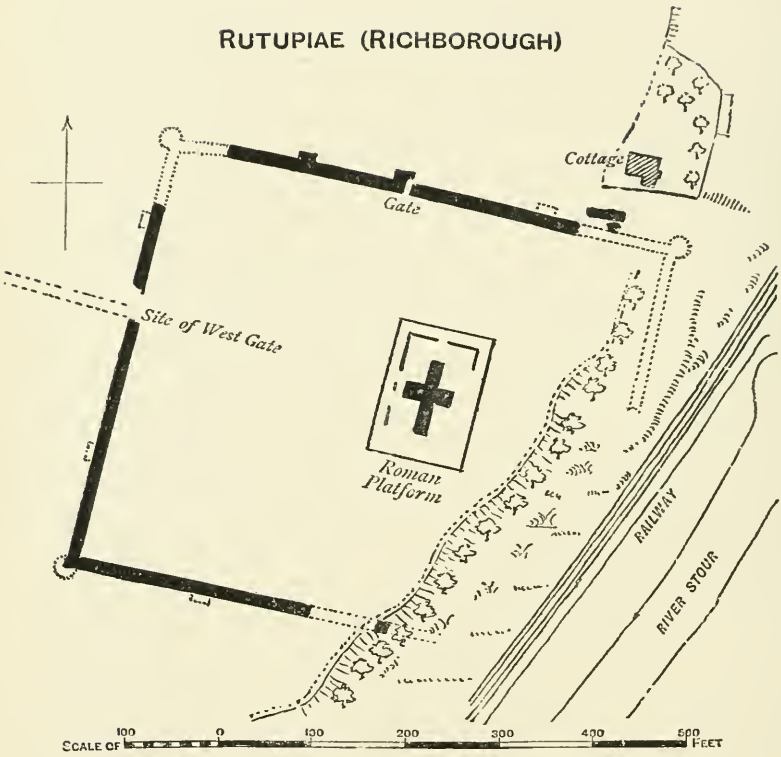
The employment of concrete for substructions in the Roman period has never been observed elsewhere in Britain, whence apparently the difficulty found by English antiquaries in coming to a conclusion respecting this example at Richborough. That it was so employed on the continent is known; the most notable examples are to be found in Rome itself.

If, as supposed by Mr. Fausset, it was intended to erect any kind of *pharos* at Richborough, a solid foundation, such as this mass of concrete, would have been required for it. The hill of Richborough was of too loose a sub-

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RUTUPIAE (RICHBOROUGH)



stance to afford support to such a structure, as was contemplated, and it was therefore necessary to dig down to a firmer bed on which to base the foundations of the intended building. A great square pit was in consequence dug through the loose sand to the firm clay below, and then filled with the dense mass of material described.

It will be asked, Why should there have been a lighthouse at this place? The question may be answered by another, Why should there be a lighthouse at or near any port?—at Dover, for example, where the Romans certainly erected one, if not two.¹ Knowing what changes have taken place in the coast line of Kent, it would surely not be an improbable conjecture that the entrance to the strait and to the port of Richborough was quite as difficult to make, if not more so, than the well-lighted port at Dover.

Again, another use for the supposed structure may be imagined, viz.; that of a signal tower combined with a lighthouse.

It has been noted that *Regulbium* stood at the northern, as *Rutupiæ* stood at the southern, end of the strait between Thanet and Kent. As the crow flies the two stations were something over eight miles apart. Under ordinary conditions so trifling a distance would have offered no difficulties of communication between them; but in the Roman period there were insuperable obstacles to direct intercourse, for the marshy estuaries of the greater and lesser Stour falling into the strait intervened between the two stations. They could therefore only communicate with each other by the circuitous route *viâ* Canterbury, or by water by means of the strait itself, probably not practicable in all conditions of the tide. It will thus be seen how important any means of signalling would become, and there is therefore some reason for supposing that a tower at Richborough may have been erected for this purpose as well as to serve as a lighthouse. By means of signals news of pirate fleets in the estuary of the Thames could be conveyed from Reculver to Richborough, from which station the coasts further south

¹ As to the second lighthouse erected on the western heights, see E. Knocker, *An Account of the Grand Court of*

Shepway, holden on Bredenstone Hill at Dover, &c. p. 47 *et seq.*

could be alarmed, and the headquarters of the British fleet at *Gessoriacum* (Boulogne) could be communicated with, if need were, by way of Dover.

Little more need be said as to Richborough. The latest mention of its existence as a military station is in the *Notitia*, where it is given as the head-quarters of the 2nd Legion, called the *Augustan*, originally in garrison at *Cærlæon*. This fact alone shows the importance of the place. Yet even the diminished numbers of a legion of the time of Honorius could scarcely have been contained within its walls, and such divisions of it as were not on duty here must have been quartered in others posts. Possibly part of the legion may have been stationed at Canterbury.

The next station to *Rutupiæ* was *Dubræ* (Dover), garrisoned in the time of Honorius by a *numerus* of *Tungrians* under a *præpositus*. Nothing remains of the station, which, it is presumed, occupied a part of the site of the present town. All that is now to be found of Roman work, much modified however in the middle ages, is the pharos standing close to the Saxon church within the lines of the mediæval castle. Another lighthouse of corresponding character is said to have existed on the western heights.

The three stations—*Regulbium*, *Rutupiæ*, and *Dubræ*—may have been more or less in communication with each other; but the last to be described, *Portus Lemanis*, occupied a position at some considerable distance from the others, and on the southern coast line. A Roman way known in modern times by the name of the Stone Street may be traced running southwards from *Durovernum* (Canterbury) for about twelve miles, at which distance it turns in the direction of the Roman port. This road connected the port with the great highway starting from Richborough, and passing through Kent to London. The port may very well have been fortified and garrisoned at a late date to prevent a hostile advance along it. The fortress stood at no great distance from the eastern end of the vast forest of *Anderida*, then doubtless recognised as a great natural barrier against the inroads of the piratical Saxons.

The position of *Portus Lemanis*, which might almost

be called a town from its size, not simply a fortified post, is a very striking one. It seems to have occupied a broad point of land slightly projecting from a line of cliffs, running east and west, which formed the northern shore of a strait separating a wide tract of marsh and sandbank from the mainland. In times not long subsequent to the abandonment of Britain by the Roman Government, it may be conjectured that the port, already partly obstructed in the late Roman period, became choked by the accumulation of shingle; the strait for a considerable portion of its length, opposite and west of the town, ceasing to exist. As the sea channel disappeared, the vague tract which had been its southern boundary grew gradually into the broad pastures and arable land now known as the Romney Marsh. The Royal Military Canal which flows at the foot of the line of cliffs referred to, represents in position the strait of Roman times.¹

At some unrecorded period, but probably before the Norman Conquest, a great catastrophe took place. The whole of the site on which the Roman town stood, undermined by land springs, slipped downwards to the marsh, and the massive walls which had guarded it were rent and overthrown in wild confusion. The walls of the east and west sides suffered least; but on the north, and partly on the east side, masses of the masonry were pushed inward, and in places the towers were parted from the walls and tumbled over. No remains of the southern wall are now visible, but recent excavations have revealed its south-east angle.²

Unlike the stations already noted, *Portus Lemanis*

¹ For the state of this district in the Roman period, see C. Roach Smith, *Report on excavations made on the site of the Roman castrum at Lympne, in Kent in 1850, with notes on the original plan of the castrum, and On the ancient state of the Romney Marshes* by James Elliott, Jun.

² Excavations made by Professor Victor Horsley, see *Athenæum*, Sept. 22, 1894. With respect to the date of the landslide it should be observed that the lower portions of the walls, when uncovered in the excavations of 1850, were found to have retained their facing

stones intact, which would certainly not have been the case if they had not been covered and forgotten for centuries. On the other hand, the greater part of the masonry which remained above ground has lost its casing, as might be expected. The parish church of Lympne, an early one, on the cliff, is said to have been built from the materials of the ruined station below it, and stones from the ruins are also worked up in the fabric of the mediæval house adjacent to the church. See the Report above quoted, p. 32.

was not strictly quadrangular in plan. The east and west walls were parallel, and probably the south wall next the harbour was at right angles with these; but on the north the wall was pushed outwards, forming an irregular bow-shaped line.

The area within the walls was larger than that of either *Regulbium* or *Rutupie*, containing about eleven acres.

The walls were of the usual construction, built on the surface of the ground, with a set-off course of stones at the base inside and out. There were also the usual bonding and lacing courses of tile at intervals of varying width, these courses being carried round the towers. Inside and out, the walls were faced with well-cut limestone blocks from quarries in the neighbourhood, and the rubble core was of the same material. The mortar was in composition like that used at Richborough, but in the facings the pink variety was employed, possibly a sign of work of late date.¹ The thickness of the walls was from 12 to 14 feet.

At intervals along the mural barrier were solid towers or bastions, very much like those of Pevensey in Sussex (*Anderida*), to which station, in the disposition of its defences, *Portus Lemani*s bore considerable resemblance. These bastions probably did not rise above the level of the rampart walk of the walls between them, and afforded, as seems to have been the case with the towers at Richborough, platforms on which to place balistæ. The projection of these towers from the curtain walls seems to have been about 15 feet. They may have varied in this respect, but definite information as to their size is wanting. They were certainly 20 feet high, as were the walls: no doubt both were higher when perfect. They were bonded into the walls and formed one substance with them, not being in any way additions.² The distance

¹ C. Roach Smith, *Report*, &c. pp. 14-15. No traces of the pink mortar are to be observed in the remains above ground, though the excavations of 1850 may have shown traces of it in the facing courses now deeply buried. It is used at Pevensey.

² In a recent visit of the Archaeological Institute to the site (1896), Mr. Hope pointed out that the only tower which can now be made out as such, at

the northern end of the west wall, had not, on its northern side, been bonded into the wall. He suggested from this fact that, originally, the station was quadrangular instead of as at present—seven-sided—the tower in question occupying the north-west angle of the quadrangle. For some reason—perhaps to guard against a threatened landslip—the line of the wall had been altered to its present direction, and the former straight

between tower and tower varied: the shortest might have been 125 feet, the longest 315 feet. In plan they were either semi-circular, or possibly semi-circular with prolonged straight sides.¹ In three instances, two on the west side and one on the east, they appear to have had small chambers in their substance, like deep niches, opening to their full width to the interior. One of them, in the middle tower on the west side, was about 6 feet high, 8 feet wide, and 10 feet deep.

On the western side of the fortress there is some appearance of a ditch, but the landslip has so affected all the surface of the ground that it is impossible to say if such a defence ever existed.

Two, perhaps three, gates, if not more, have been found in the walls. The two on the west side have no marked characteristics. They seem to have been simple openings from 5 to 6 feet in width, and probably arched. The principal entrance was on the east side, and the Roman road from Canterbury (*Durovernum*) descended the hill towards it. The massive substructure of this gate is remarkable, formed as it is of two layers of heavy stonework. Upon this platform were erected two semi-circular towers 6 feet across. The distance between these towers, or rather huge buttresses, was 11 feet, the actual archway of the gate probably not being more than 8 or 9 feet wide, if any judgment can be formed from the drawing given by Mr. Roach Smith in his Report, which does not, however, accord either with his plan or his own measurements of the structure. The semi-circular buttresses of the exterior are repeated in the same relative position on the interior face of the wall. In all likelihood there was no chamber over this gate, the rampart walk of the walls being simply carried across it on a timber flooring.

With respect to the buildings within the area of the station, Mr. Roach Smith says: "In the upper part . . . broken walls of a building were found, but they were so

wall pulled down. The theory is a plausible one; that it should be made shows how much has yet to be found out with respect to this station, and how much further exploration is needed on this site.

¹ Mr. Smith says that one tower at

G on plan, p. 5, Report, &c., was elliptical in plan, but it is possible that if all the towers had been carefully examined they would have been found to resemble those of the kindred fortress of Pevensey, which are in plan as above described.

dislocated that it was hopeless to attempt tracing them, and we can only surmise that they had formed originally a portion of a series of long, low edifices, which probably extended across the area; for at the centre we succeeded in laying open the remains of a building, of about 120 feet long by 30 wide, consisting of an apartment in the middle with an octangular termination towards the north, and apartments on the sides of double the dimensions. . . . The walls were built of limestone and tiles, the angles composed of a larger number of tiles as is usual in Roman masonry. No vestige of pavement or flooring remained, and nothing was found except some pieces of pottery, a few coins, chiefly of the Constantine family, and fragments of glass, some of which seemed to have belonged to windows. The plan of this building will indicate the peculiar manner in which the western apartment had been broken away and carried downwards, while that to the east and the upper part of the middle room remained nearly *in situ*, having been obstructed probably by a rock underneath. It is impossible to say decidedly for what purpose this building may have been intended, whether it was part of the barracks for the Turnacensian or other soldiers who were quartered in the castrum, or whether it was used as a storehouse. The broken walls on the east, before mentioned, appeared from their character to have belonged to a similar building."

Opposite the southernmost tower on the eastern side other constructions were discovered, consisting of a group of four chambers, three of which had been warmed by hypocausts. The largest of these chambers had an apse in its south wall 15 feet in diameter, and on the east side a rectangular projection filled by pilæ of larger dimensions than the rest, which probably supported a bath. The furnace was just outside the east wall of this projection. The room directly north of this chamber, 21 feet by 11 feet, also warmed by a pillared hypocaust, had arches in the party wall, so that the two hypocausts were in communication. It also had a furnace on its east side. To the west of this room and joining it was another of similar size. Dwarf walls running the length of the room formed the hypocaust, which communicated by an arch in the party wall with the hypocaust of the chamber last described, and received the heat from it by this means. To the south

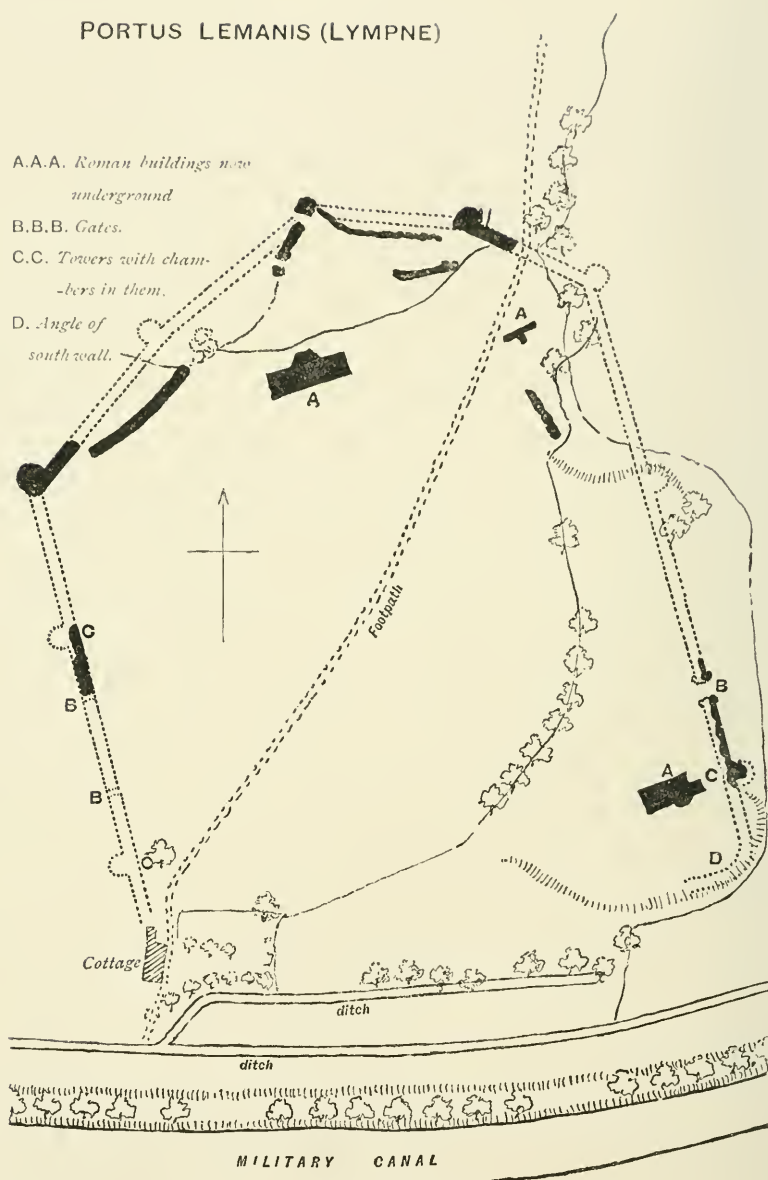
PORTUS LEMANIS (LYMPNE)

A.A.A. Roman buildings now
underground

B.B.B. Gates.

C.C. Towers with cham-
bers in them.

D. Angle of
south wall.



SITE OF ROMAN PORT

SCALE OF 100 0 100 200 300 400 500 FEET

was another room of equal size with the last named. It was much ruined.

Possibly this group of chambers may have formed part of the baths of the station. They evidently belonged to a larger whole. T-shaped iron cramps for fastening box flues to the walls were found in the last extension of the room just spoken of. It is probable that they served to hold a jacketting of flue tiles to the walls of this hot bath-room. Traces of painted plaster were also turned up among these ruins.

This short account of the buildings found within the walls may be brought to a close with a notice that vestiges of some chamber near the southern end of the western wall of the station were dug up in the course of the excavations of 1850.

But two important discoveries yet remain to be recorded having a bearing on the date of this station. Amongst the *débris* turned up in these excavations were various fragments of roof and other tiles bearing a stamp with the letters CLBR, which Mr. Roach Smith read as *Classiarii Britannici*, that is to say, marines of the British fleet. These stamped tiles, none of which were perfect, appeared to have been used up as building material, and it is to be observed that none of the perfect tiles found in the excavations in the ruined buildings, or along the line of the wall of enceinte, had any stamp; these broken fragments only, bore inscriptions. Again, in the ruins of the principal gate it was noted that many of the stones had evidently come from another structure, perhaps of some magnitude. One of these stones proved to be an altar, in a much mutilated state, bearing on its face a worn inscription, which, as read by Mr. Roach Smith, purported to be a dedication of the altar by a præfect of the British fleet, Aufidius Pantera by name, probably to Neptune; but this part of the inscription was nearly effaced. This stone had evidently been under water for some time before it was worked up in the masonry of the principal gateway of the fortress, for it had barnacles adhering to it, as was also the case with another fragment found in one of the houses in the area of the station.

It may be well to see what deductions can be drawn from these discoveries.

It is a well-known fact that wherever a camp has been built and occupied by any division of the forces of Rome, naval or military, the name of such division is not uncommonly to be found amongst its ruins, stamped on tiles or cut in stone, usually in a very abbreviated form. The stamp upon the tiles mentioned, if rightly interpreted, together with the inscription on the altar referred to, would therefore go far to show that at some period, probably before Constantine, a division of the British fleet was stationed at *Portus Lemanis*, and that buildings were erected there by its crews. These were no doubt connected with the maintenance of the fleet, perhaps storehouses about the port itself, having to do with the docks.

From the facts revealed by the excavations it is clear that when necessity arose for fortifying the place, either the buildings in question were pulled down, or, being then in ruins, their materials were in part used in the construction of the new fortifications. The neglected state of the altar, and its being made to serve in the masonry of the eastern gate, would seem to point to some late period for the erection of the fortified line around what may, for a couple of centuries, have been an open town and port.

It is strange that though evidence has thus been found on the spot to show the comparatively early importance of *Portus Lemanis*, there is nothing but a brief sentence in the *Notitia* to prove its continued existence down to the latest period of Roman rule, at which time it was garrisoned by a *numerus* of Turnacenses. At what period its massive walls and towers were erected is matter for conjecture, but it could scarcely be placed earlier than Constantine, if so early, regard being had to the plan and structural details of the fortress. Further exploration of the site might help to determine this important point.

Having thus briefly described the three still existing coast fortresses of Kent, the next question which offers itself for solution is that of the relative dates of their erection.

There are two very definite types into which Roman military stations may be divided. The first shows a rectangular area, sometimes approaching a square, sur-

rounded by a wall unbroken by any external projection ; except in rare instances the towers at the gateways had no external projection. At the same time square towers occur internal to the wall, between the gateways, and sometimes in the internal angles, which are always rounded. Sometimes these towers at the angles are reinforced by a widening of the wall, somewhat resembling a platform, for the whole length of the curved line. Occasionally the wall serves as a retaining wall to a bank of earth raised against it on the inside, which bank afforded ample room for placing military engines, and allowed space for the concentration of the defenders at any given point. Generally speaking, the walls of camps of this first type are not so thick as those of the second, some not being more than 5 feet in width. The gates of these stations consist either of a single arch, or double arches, according to their importance, the width of each arch being from 10 to 12 feet. They are always flanked by towers. Between the towers and over the archways, a gallery with windows, back and front, was carried ; occasionally, if the gate was a deep one, a chamber took the place of the gallery between the towers.

As a rule, a ditch (sometimes two, or even more ditches) ran at the foot of the walls with an intervening berm, and completed the defences.

It would occupy too much time to enter into the internal arrangements of camps of the first type, though they offer a most interesting subject for study. These notes, however, must be confined to a description of the defences only.

In Britain examples of the first type are to be found in the stations on the Wall of Hadrian, and in the great Legionary camp, at York, and also to these, amongst others, may possibly be added the largest of the camps in Eastern England, the *Venta Icenorum* (Caister near Norwich).

The type of fortified station here described was certainly in existence in the reign of Hadrian (A.D. 117–138). How much later it prevailed it is not easy to say ;¹ but towards the end of the third century it seems to

¹ A dated example is to be found in the Legionary camp of Lambæsis, in Northern Africa, founded by Hadrian A.D. 128. See Wilmanns, *étude sur Lambese* (trad. Thédenat) in *Bulletin*

trimestriel des Antiquités Africaines recueillies par les soins de la Société de Géographie et d'Archéologie de la Province d'Oran, Vol. I. p. 185 et seq., 1882. 1 plan.

have given place to another, the second type mentioned. In this latter, the unbroken line of enclosing wall was no longer to be seen; instead, the towers, which before had been as a rule internal, now boldly projected from the line of enclosure, and the principle by which every part of a fortification should command and defend the other had been definitively adopted and acted upon.

A fine and remarkable example of the second type is to be seen in the walls of Rome itself, begun by the Emperor Aurelian and finished by Probus A.D. 280, much of which wall still exists. The wall is 12 feet thick in its lower portion, and constructed of solid concrete faced with brick. The square towers occurring at frequent intervals with which it is studded projected as much as 13 feet from its face. The lower part of the towers, like the wall, is solid.¹ The gates of the second type did not essentially differ from those of the first, but the square towers on either side of the arches of entrance were now more often exchanged for semi-circular ones with slightly prolonged sides. In fact, as the years went on, it was found that the last-named form of tower was stronger and offered greater advantages for defence than the earlier square tower, against whose angles the battering ram could be used with effect. The semi-circular tower then came commonly into use, though the square tower was never abandoned. Other forms for towers were invented. In the great palace fortress of Diocletian at Spalato, the gateway towers are octagonal, while those at the angles and the intermediate ones are square.

In this country the towers of the modified semi-circular plan mentioned are almost invariably solid, containing no chambers; they do not rise above the rampart walk, nor are they of any great size. They may be found added to pre-existing walls, or may form part and parcel of the walls of which they are the main defence. In the latter case the walls are generally of considerable thickness, and the structure may fairly be considered one of comparatively late date.

If the facts here stated are studied with relation to the camps under consideration, some interesting deductions may be drawn from them.

¹ See J. H. Middleton, *Ancient Rome in 1885*, 1st ed. p. 430 *et seq.*

If, as there is reason to believe, the type first mentioned be the earlier of the two treated of, it will be seen how closely the plan of Regulbium (Reculver) accords with it. From all that is known of this station it may be supposed that it never had external towers,¹ but it is evident that it had rounded angles; its walls were comparatively thin (only 8 feet in width) and they were built, in part, as retaining walls to ground within them, the higher level thus obtained, in part, substituting the internal mound of the early type. Whether there was any thickening of the wall at each of the angles is not known, but excavation within the only existing one might possibly settle this question, and further excavations along the south side might reveal the former existence of internal towers. The evidence of coins, the absence of brick courses in the walls, all point, as has been already observed, to an early origin for this fortress.

The same cannot be said for *Rutupiae* (Richborough). The walls are not backed, as at Reculver, by higher ground inside the area, and they have a greater thickness than those of Reculver. But what shows that this station is of later date (at least as far as the existing fortifications are concerned) are the indications of flanking defences to be noted in the rectangular projecting towers, which occur at intervals upon the walls, and the large round bastion at each angle of the enclosure. Though these square towers gave a flanking defence to the curtain between them, and a moderately-sized platform at the rampart level for military engines, yet they had too little projection to be of much value for such defence. They must, therefore, be looked upon somewhat as an experiment in the principle which had begun to be more usually adopted than heretofore, in which boldly projecting towers at short intervals prevented an assailant from attacking the curtain walls between them or forced him to run the gauntlet of an attack on either, or both, sides in doing so.

With one exception—the existing north gate—nothing

¹ On the Column of Trajan at Rome is to be seen figured a camp, a simple quadrangular enclosure, strongly re-

sembling that at Reculver. See Pietro Santi Bartoli, *La Colonna Trajana*, Pl. 7.

is really known of the entrances to this station. It may be that too few traces have been left to make any endeavour to discover them worth the labour it would involve, and yet the attempt should be made, as gateways of what appears to be a camp of a transitional time would perhaps offer in their plan some deviation from the early established form.

It is likely that in the middle of the latter half of the third century, when the sea rovers began to trouble the coasts of Britain, the walls of this camp arose to protect the approach to the harbour, and that the erection of a lighthouse and signal tower was contemplated within the area.

If *Rutupiæ* shows us the principle of flanking defence as yet imperfectly carried out, the walls of *Portus Lemanis* (Lympne) make it plain that that principle was clearly established when they were built. The square towers have given place to the far stronger semi-circular ones, with prolonged sides, part and parcel of the walls, which are much thicker than those of either *Regulbium* or *Rutupiæ*. Another proof of late date may be found in the fact that the enceinte is of comparatively irregular form, as is that of the kindred fortress of *Anderida* (Pevensey in Sussex). *Portus Lemanis* and *Anderida* were probably the latest of the stations built along the southern shores of Britain, and both have a certain likeness in their plans and dispositions to early mediæval fortification.

As far as our knowledge extends at present this is all that can be said as to the periods of the erection of the three fortresses under consideration, viz., that *Regulbium* (Reculver) was the first in date; *Rutupiæ* (Richborough), the second, and lastly, *Portus Lemanis* (Lympne), this knowledge being based upon the varied construction and plan of each station. More fully planned excavation of each station than has yet been made might probably afford further clues; but until this is attempted we have to fall back for information on some fable, and a few facts gathered from time to time from partial digging on the different sites; for which latter we cannot be too grateful to those earnest antiquaries who have undertaken the trouble of what is often a

difficult and, not always, a successful task. It may be confidently asserted, in conclusion, that practically the only means of obtaining new information respecting these Roman remains is by systematic excavation, and by systematic excavation alone.

Proceedings at Meetings of the Royal Archaeological Institute.

ANNUAL MEETING AT CANTERBURY, JULY 22ND TO JULY 29TH, 1896.

Wednesday, July 22nd.

At noon His Worship, the Mayor of Canterbury (Alderman S. HILL DEAN), received the members of the Institute in the Guildhall. The office of President of the meeting had been accepted by His Grace, the Archbishop of Canterbury, but the unforeseen coincidence, at the last moment, of the date of the Royal Wedding, and that of the opening of the meeting, unfortunately deprived the Institute of His Grace's presence and promised address.

HIS WORSHIP said that on behalf of the Corporation and of the citizens generally, he desired to offer the members of the Institute a most hearty welcome to the city. Unfortunately they missed the genial face of the Archbishop, who, as they were well aware, was engaged in a most interesting ceremony elsewhere. In welcoming the members to the city, he need hardly remind them that the neighbourhood abounded in buildings of interest to archaeologists. He trusted the glorious weather of that day would last during the whole of the visit, and he was sure that under such conditions the visit to Canterbury would not only be interesting and instructive, but also very pleasurable. In conclusion, His Worship again offered the members the kindest welcome the city could give them.

THE PRESIDENT OF THE INSTITUTE, Viscount Dillon, said he was sure the members would thank the Mayor very heartily for the kind welcome he had given to them. They knew there was an immense deal to be said and done here, and he believed there were a great many gentlemen who were ready to explain and show all the treasures of Canterbury. It was twenty years since they last came here, and in that time an enormous amount of progress had been made in research, so that twenty years did not seem too long a period to put between the visits. At the same time there were so many places of interest in England that they were unable to allow a much shorter interval between their visits. On behalf of the Institute he begged to thank the Mayor for his very kind welcome.

THE BISHOP OF DOVER said he had been called upon at the very last moment to express the very deep regret felt by the Archbishop of Canterbury, who was to have delivered the Presidential address, at his inability to attend that day. His Grace desired him to express by word of mouth what he had already expressed to their secretary and officers—his regret. It was a great loss to them that they would not hear his address, and also to His Grace that he was unable to meet such a distinguished body in so unique a city as his own city of Canterbury. They all knew the reason why His Grace

was not with them that day, and His Worship the Mayor had well expressed their feelings of interest in the occasion which had called him away. Proceeding, the Bishop said he was not going to make a speech on that occasion. He was almost the youngest member of the Institute, and knew nothing, or next to nothing, about archæology, so he thought he had better make this fact known at once and save himself being considered an authority on such matters. But he should like to associate himself with the Mayor in wishing them all the most cordial welcome they could possibly give. He was there not only for the Archbishop but also for the Dean of Canterbury, who that day was fulfilling a long-standing engagement which could not possibly be altered.

Such a visit as this had a very serious and earnest purpose behind it. It was not, as some might think, merely of the nature of a large and extended picnic; they conferred a distinct value upon the localities they honoured with their presence, and he was sure it would ill befit this city not to make some recognition of their sense of the honour which had been conferred upon Canterbury. Their proceedings would be read and pondered over long after they themselves had gone, but by none would they be read more carefully than by the Mayor and Corporation of this city, who were in charge of the general aspect of its buildings and streets, and who had shown in the past, and they all trusted in the future, would show that spirit of true Conservatism and real reverence for old things which made the streets of Canterbury so remarkable. Their proceedings would be read by none with greater care than by the Dean and Chapter, who were guardians at the present moment of that priceless fabric, the Cathedral. He was not saying too much when he said that Canterbury Cathedral, in its combination of outward beauty, architectural variety and historical interest would yield to none in this country in point of attractiveness to such an association as this. In this city there was the desire to maintain every link that was possible with that glorious past, and the history both of the civil and religious life of our country which entered so largely in our interests of the present day. Nothing was more remarkable, he thought, than the wonderful growth of the historical imagination in the last few years, and this revival was very largely due to such an Institution as this. By their careful investigations they went far to popularise that knowledge which was so pleasant an element in our present day life, and they added very largely to the educational refinement of the people of this country by such work as they commenced that day. In conclusion, the Bishop referred to the preservation of the ancient traditions of which the Society constantly reminded us, remarking that, were it not for this, the English people might, as other countries had done, cut off its links with the past, and go too far in modern innovation, to preserve that strong and stable life, which in its arrangements, its respect for civic institutions, and reverence for religion and ordered life, had made the British nation the wonder of the world to-day. On behalf of those whom he represented, he trusted the members of the Institute would go from Canterbury with pleasant associations, and, he hoped, a good regard for the people who lived in that ancient City.

Mr. HENNIKER HEATON, M.P., remarked that he left the House of

Commons a little after three o'clock that morning, having been there engaged in a less pleasant task than that now assigned to him, and he had hurried with very great pleasure to join the Bishop and the Mayor in welcoming the Institute to Canterbury. He was quite certain that this meeting would be no less interesting to them than that of 1844, a record of which was contained in a book he now held in his hand. He felt sure they would go away very pleased with their visit, because he was never tired of recognising this as the ecclesiastical capital of the British Empire. He had nothing to add to the charming words of the Bishop of Dover, in which he referred to the efforts made to retain the old associations and buildings of this country, and had very great pleasure in moving a vote of thanks to him for the admirable and common-sense address to which they had just listened.

Alderman MASON in seconding the motion mentioned that the first President of the Institute—Lord Conyngham—afterwards became member for the city of Canterbury. The motion was then carried with acclamation and acknowledged by the Bishop.

Sir HENRY HOWORTH, M.P., then proposed a vote of thanks to the Mayor for presiding. This was seconded by Mr. J. T. MICKLETHWAITE, F.S.A., and carried unanimously.

By the courtesy of the Mayor and Corporation the ancient maces and sword of state of Canterbury, and the maces of the old borough of Fordwich were exhibited in the Guildhall as well as a number of the city seals. Alderman Mason and Mr. W. H. St. John Hope briefly described the various objects.

After luncheon the members assembled at the great gateway of St. Augustine's College, where Mr. W. H. St. JOHN HOPE, M.A., pointed out its architectural features. On entering the college Mr. Hope gave a brief account of the history of the great Benedictine Abbey of St. Peter and St. Paul, which had for upwards of nine hundred years been established here, and pointed out the general disposition of the buildings, the remains of which he also indicated and described. Mr. Hope specially dwelt on one peculiarity of the monastery in its earliest days, that it possessed three churches standing in line at the same time, viz., the monk's church of St. Peter and St. Paul, with the chapel of Our Lady to the east, but separated from it by the monks' cemetery, and beyond that the chapel of St. Pancras.

From St. Augustine's the party proceeded to the chapel of St. Pancras, where Canon ROUTLEDGE, F.S.A., described the remains and indicated the discoveries made by him upon part of the site by excavations. Mr. Hope said that from a comparison of its plan with those of the churches of Rochester (604), Lynginge (633), and Reculver (c. 670), it was clear that St. Pancras was an early member of the same group of buildings, and not improbably it had been built under the direction of Augustine himself, soon after his arrival here in 597.

The members then walked on to St. Martin's Church, where Canon ROUTLEDGE again acted as guide, and read a carefully prepared paper on the history of the building and the discoveries recently made in it by excavations and the removal of the comparatively modern plaster from the walls of the nave. The latter operation had revealed not only the apparently Roman construction of the walling,

but also the existence of two original windows in the west wall and the traces of a lofty archway between them. Excavations had also disclosed the foundations of a small chamber on the south side of the church, in the angle formed by the nave and chancel, of a date contemporary with the very early work of the western part of the chancel. From the church the party passed to the adjoining residence of Mr. and Mrs. Mapleton Chapman, who hospitably provided tea, and afforded every facility for the inspection of their interesting Jacobean house.

In the evening the Antiquarian Section was opened by Professor T. McKENNY HUGHES, M.A., F.R.S., F.S.A., in the old chapel of the Hospital of St. Thomas of Canterbury, commonly called the East Bridge Hospital, which had kindly been placed at the disposal of the Institute by the Master, the Rev. T. Cross. Professor Hughes' opening address is printed at p. 249 of this volume.

The Rev. G. M. LIVETT, M.A., followed with an address on the architectural history of St. Martin's Church, Canterbury. Referring to the tradition quoted by Bede that there was on this spot a church dedicated in honour of St. Martin, which had been built while the Romans still dwelt in Britain, Mr. Livett said they must not overlook the fact thus stated, and the question to consider was, not whether St. Martin's was Roman or Saxon, but whether any nucleus of a Roman church existed in the present building. After reviewing the various discoveries made by Canon Routledge, Mr. Livett showed, by reference to plans and drawings, that the oldest part of the church, in his opinion, was the western half of the chancel, which not only contained an inserted doorway of very early Saxon date, but had apparently terminated in an apse and been attached to a nave of the same width, the foundations of which had been lately found under the floor of the present nave. An interesting discussion followed, in which Professor Hughes, Professor Clarke, Mr. Micklethwaite, Mr. Hope, Sir H. Howorth, and others took part, resulting in the prolongation of the meeting to a somewhat late hour. The consensus of opinion seemed to be that if the case for the existence of Roman work at St. Martin's had not been fully proved, the recent discoveries made in the church had, at any rate, furnished matter for an entirely new consideration of the question.

Thursday, July 23rd.

At 10 a.m. the members proceeded in brakes to the village of Fordwich, anciently a borough, and an appendage of the Cinque Ports. At the Town Hall the party was received by the vicar—the Rev. R. Hitchcock, M.A.,—who introduced the Rev. C. E. WOODRUFF, M.A., the historian of Fordwich, under whose guidance an inspection was made of the Town Hall, a curious little two-storied building of timber of fifteenth century date, with the chief room on the first floor. Here are preserved the old bar, the ducking stool, a pair of old drums, and a very ancient looking hutch. In the corner is a remarkably incommodious “jury room,” and underneath it, on the ground floor, the lock-up or prison. Leaving the Town Hall, a move was next made to the Church, where Mr. Woodruff again acted as

guide. The building is one of considerable interest, and consists of a Norman nave and chancel, a slightly later north aisle, with south porch and west tower. The font is a good Norman one, and in the decorated windows of the nave are some beautiful fragments of old glazing. But the most remarkable feature is a Norman monumental stone, of the "hog-back" type, with arcaded side, and coped top with overlapping scales; it appears to be of early twelfth century date.

The journey was thence resumed to Reculver, where after luncheon, Mr. GEORGE E. FOX, F.S.A., delivered an address on the History of the Roman Station. Mr. Fox pointed out that from its position there could be little doubt that the fortress was built to command the northern end of the channel that once severed the Isle of Thanet from the mainland. The camp was square in form, with rounded angles, a feature indicative of an early date, but its northern half had been destroyed by the encroachment of the sea. The position of the gates was doubtful, but the extent of the walls was easily traceable by the existing remains, which were afterwards perambulated, under Mr. Fox's guidance. Mr. J. T. MICKLETHWAITE, F.S.A., briefly referred to the remains of the desecrated parish church, which stands on about the original centre of the camp, but now on the edge of a cliff, strongly guarded by breakwaters to ensure the preservation of the towers as Trinity House landmarks. Its oldest portions were, he said, built in the Roman manner, but they were not of Roman date, as some had thought, and it was clear from the plan that the church was of Saxon origin, and probably that built by "Bassa, the mass-priest" shortly after the gift of the site to him by Ethelbert in 669.

Re-entering the carriages, the party next proceeded to Herne, where the vicar, the Rev. J. R. BUCHANAN, M.A., received the members in the church, and pointed out the chief features of interest. The principal architectural features are the fine decorated tower to the west of the north aisle, and the somewhat later arcades of the nave. The font is a beautiful and rich example which can be dated by the arms of Henry IV, and Archbishop Arundel, as having been carved between 1405 and 1413. There is also a good, but mutilated, late screen across the north aisle, and on the floor a number of well-known brasses. The stall work and misericords in the chancel deserve notice.

After the inspection of the church Mr. Buchanan very kindly entertained the members to tea on the vicarage lawn.

In the evening Professor E. C. CLARK, LL.D., F.S.A., opened the Historical Section with an address on "The Repopularisation of History." Professor Clarke's address is printed at p. 285.

Mr. FRANCIS W. CROSS followed with a paper on "The Early Minute-Books of the Dean and Chapter of Canterbury." This paper is printed at p. 235.

Friday, July 24th.

At 9.45 a.m., the members should have proceeded by rail to Dover, but the train did not put in an appearance until forty minutes after the advertised time of starting. Eventually the party arrived at

Dover, and proceeded to the Town Hall, where the Mayor cordially welcomed the Institute. Mr. E. WOLLASTON KNOCKER, the Town Clerk, recapitulated the history of the Maison Dieu, on the site of the present buildings. Little of it, however, remains except a tower next the street, and some arches between the two halls. By the courtesy of the Mayor and Corporation, the mace, moot-horn, and civic plate, were exhibited and described by Mr. Knocker.

From the Town Hall the party proceeded to St. Mary's church, where they were received by the vicar, the Rev. Prebendary PALMES, M.A., who fully described the building.

The Benedictine Priory of St. Martin, the remains of which are now preserved within the grounds of Dover College, was next visited. Mr. W. H. ST. JOHN HOPE, M.A., pointed out the decorated gatehouse, the Norman guest-house (now the College chapel), on the north side of the great court, and the ruins of a barn behind it. The site of the church was also indicated, and the remains of the western range of buildings explained. Of the claustral buildings only the frater remains intact. It is a fine and lofty late Norman hall, one hundred feet long, with wall arcades, alternately pierced at the sides for windows, and at the east end traces of a large contemporary painting of the "Last Supper."

After luncheon the party proceeded to the Castle, where Mr. EMANUEL GREEN, F.S.A., pointed out and described the chief features of interest. Mr. Mickletonwaite offered some remarks upon the church of St. Mary-within-the-Castle, which he contended was, on the strong evidence of its plan alone, of late Saxon date, just anterior to the Conquest, though built of old Roman material. The Roman pharos or lighthouse to the west of it had, he thought, been preserved through being used as a bell tower to the church with which it had once been connected.

At the section in the evening, Mr. E. W. BRABROOK, F.S.A., President of the Anthropological Institute, read a paper on "Kent in Relation to the Ethnographic Survey." This paper is printed at p. 215.

Mr. J. T. MICKLETHWAITE, F.S.A., followed with the first part of a paper on "Some Saxon Churches."

Saturday, July 25th.

At 10 a.m. the General Annual Meeting of the Members of the Institute was held in the Eastbridge Hospital. The President, VISCOUNT DILLON, F.S.A., in the chair. The minutes of the last annual meeting were read and adopted. The Chairman then called upon the Hon. Secretary to read the report for the past year.

REPORT OF COUNCIL FOR THE YEAR 1895-6.

Your Council has the honour of presenting the fifty-third Annual Report on the affairs of the Royal Archaeological Institute, together with the cash account for the year ending December 31st, 1895. It is with some gratification that the Council draws attention to the fact that the expenditure has been covered by the income and that there are no liabilities outstanding beyond the expenses appertaining

to the management from day to day. The cash account shows a balance in favour of the Institute of £63 18s. 7d. The arrears of annual subscriptions are inconsiderable at the present time. In alluding to the disturbing statement in the last Report that frauds had been perpetrated by Martin, the office clerk, the Council believes that the loss incurred thereby has been ascertained, as nearly as possible, and that the amount is somewhat over £60. Prosecution of the delinquent would not have recalled even the smallest sum, and his subsequent decease closes the event so far as he was concerned. The loss has been made up by the subscriptions of some members of the Institute, and the equilibrium as regards that feature in our finance has been thus restored. One item only of that subscription which came to hand in 1895, appears in the present account, the remainder will appear in the account for 1896. The list for further voluntary subscriptions is however still open.

Your Council has to further report that in April, a communication was received from the British Archaeological Association asking that delegates on behalf of the two Societies should be appointed to again consider the question of a fusion or amalgamation. Willingly acceding to this request the delegates of the Institute met those of the Association in May, 1896, and reported. Your Council having considered the various propositions made by the latter, felt bound to return some modified proposals. To these at present no reply has been made.

The members of the Council retiring are: Col. William Pinney, Messrs. E. J. Hopkins, Somers Clarke, Hellier Gosselin, A. E. C. Griffiths, and W. H. St. John Hope. It is proposed that General Pitt-Rivers and Col. William Pinney be elected Hon. Vice-Presidents; and that Professor W. Boyd Dawkins, F.R.S., F.S.A., be elected a Vice-President; that Messrs. Somers Clarke, Hellier Gosselin, A. E. C. Griffiths, W. H. St. John Hope, and J. T. Micklethwaite be re-elected, and that Rev. E. S. Dewick, F.S.A., be added, to the Council. It is further proposed that Mr. H. Longden be elected auditor for the ensuing year in the place of Rev. E. S. Dewick.

On the motion of the PRESIDENT, the report was adopted.

The HON. SECRETARY then read the balance-sheet (printed at p. 392), which was also adopted.

Several new members were elected, and some discussion arose as to the place of meeting for next year. Eventually it was left in the hands of the Council.

At 11 a.m. Professor GREGOIRE TOCILESCO, of the University of Bukharest, and chief director of the National Museum, gave an account of his researches in the Dobrudsha, and of the extensive excavations which he has carried out during several years. The most striking results of his labours include the identification of the ancient topography of Lower Mœsia; the discovery of three great lines of fortification running across the province; the collection of over 600 ancient inscriptions; and the excavation of a considerable part of a buried city, Tropæum Trajani, now Adamklissi, which is situated about 15 kilomètres to the south of Rassoava. It was one of the most important places in that region, attained municipal rank, and became the chief garrison of the frontier. A few years ago all

that was known of it may be described as heaps of ruins, which included a great tumulus of masonry; its name even was unknown.

By some it was regarded as a Persian monument of the age of Darius; others supposed it to be the tomb of a Roman General, or of a Gothic Chief. These conjectures have now given place to certainty. Professor Tocilescu having unravelled the history of the site, and laid bare some of its most remarkable buildings. His plan indicates a city of $10\frac{1}{2}$ hectares in area, surrounded by walls adapted to the variations of the surface, and with 36 towers or bastions, of which 12 have been already uncovered. Three gates are visible, two larger ones east and west, and a postern on the south. The principal street is paved with slabs of stone, and has central channels, one for the water supply, the other for drainage. Right and left of the main street were ranged great buildings—here a basilica (in the classical sense), there a Byzantine basilica with a crypt under the altar, and containing a fine mosaic. There are proofs that the city had been reconstructed, as stones bearing inscriptions had been re-employed as building material. Further evidence of this has also been found in the inscription of a trophy which dates from the year 316, and furnishes information as to the history of the region. The city was founded by Trajan, received municipal rights towards the close of the third century, and was probably destroyed by the Goths. The Emperor Constantine and his associate Licinianus fought the barbarians and “reconstructed the city of Tropæensium from its foundations”—“Ad confirmandum limitis tutellam etiam Tropæensium civitas a fundamentis feliciter auspiciato constructa est.” The *tropæum*, of limestone, 2.65 mètres in height, was the memorial of the victory, and served as the arms of the city. It will require several years of continuous excavation to lay open the entire city, which seems likely to become a second Pompeii. Thanks to the labours of Professor Tocilescu, the great tumulus has ceased to be an enigma; its epoch and motive have been revealed, and the splendid monument of which it encloses the remains has been described and figured in a monograph by the discoverer (“Das Monument von Adamklissi,” Wien, Hölder, 1896, in folio). It may be briefly described as a gigantic trophy erected by the Emperor Trajan, after his victory over the Dacians in the year, 108–9. It was dedicated to Mars Ultor, and its architect was the famous Apollodorus of Damascus.

During the present year Professor Tocilescu has discovered and excavated another monument which is unique in the ancient world. It is a mausoleum erected by Trajan to commemorate the soldiers who fell in a battle near the spot, in which the Emperor himself took part. The monument is quadrangular, on a platform of five or six steps, and bore plaques covered with inscriptions recording the names of the Roman citizens, the legionaries, and even the peregrines who fell in a battle near the spot. These inscriptions are full of interest, and contain details of the *domus* or of the *domicile* of the Roman soldiers, and of the countries to which the strangers belonged. M. Tocilescu gave a most interesting description of the principal inscriptions, and of the light which they throw on the history of the buried city. He suggests that the great trophy was erected by Trajan at Adamklissi, although the war mainly took place north of the Danube, on account

of the emperor's own presence at the opening battle near that spot, and within the three lines of defence. This battle is indicated in the Trajan column. The mausoleum appears to have been in the form of a *pyros* such as seen on the medals of Antoninus Pius and Julia Domna. In concluding his discourse the professor said that these excavations, which are being continued without interruption, are of the utmost interest to Rumanians, as they bring to light long-buried memorials of the birth of their nation and of the Roman soldiers who sacrificed their lives in its behalf.

On the completion of the address the President expressed the hearty thanks of the members of the institute to Professor Tocilescu and to the Rumanian Government for the splendid work upon which they are engaged at Adamklissi.

Mr. GEORGE E. FOX, F.S.A., followed with a paper on "The Roman Coast Fortresses of Kent." Mr. Fox's paper is printed at p. 352.

The Rev. Canon SCOTT ROBERTSON, M.A., then conducted the members round the Eastbridge Hospital, and gave a full description of the building and its history. A visit was next made to the church of St. Alphege, also under the guidance of Canon Scott Robertson.

In the afternoon the members proceeded in brakes to Chartham and Chilham. At Chartham the rector, the Rev. C. RANDOLPH, M.A., received the party, and gave an interesting description of the church, especially referring to the beautiful chancel windows with "Kentish" tracery and fine painted glass.

From Chartham the party proceeded to Chilham Church, where the Vicar, the Rev. G. H. WRIGHT, M.A., received the members, and fully described the church and its monuments. From the church the party proceeded to Chilham Castle, where they were received by the owner, Mr. C. S. Hardy. Mr. EMANUEL GREEN, F.S.A., briefly sketched the more important points in the history of the manor, and Mr. F. W. CROSS described the architectural features. Mr. Hardy most hospitably entertained the members to tea on the lawn.

In the evening Mr. J. T. MICKLETHWAITE, F.S.A., read the concluding portion of his paper on "Some Saxon Churches." This paper is printed at p. 293.

Monday, July 27th.

At 9 a.m. the members proceeded to Sandwich by train. St. Bartholomew's Hospital was first visited, where the chapel, a building of the thirteenth century, was inspected. VISCOUNT DILLON, F.S.A., pointed out the peculiar features of an interesting knightly effigy on the north side of the altar in complete mail without any plate defences, and with the shield laid flat upon the chest, its date was assigned to about 1230.

St. Peter's Church was next visited, the rector—the Rev. W. FLOWER, M.A.—reading some descriptive notes. The church was once a very fine one, chiefly of the thirteenth and fourteenth centuries, with nave and chancel with continuous aisles, and central tower. In 1661 the south aisle was wrecked by the fall of the tower, and is now a mere ruin walled off from the rest of the church. In the north

aisle are several interesting tombs and effigies. Beyond the east end of each aisle are the remains of a vestry, and under that on the south side is a vaulted charnel house for the reception of bones discovered in digging graves.

St. Clement's Church was then visited and described by the vicar—the Rev. A. M. CHICHESTER, M.A. Its principal features are a Norman central tower, a decorated chancel, and a perpendicular nave, the last with two aisles. In the chancel are some remains of the old stalls, and the font is an interesting one of the fifteenth century, with shields and other devices. On the floor are numerous indents of lost brasses to former inhabitants of Sandwich.

At noon HIS WORSHIP THE MAYOR (Alderman F. W. Lass) received the members in the quaint old Town Hall. His Worship after welcoming the Institute to the town of Sandwich, proceeded to read some notes on the Town Hall. The building was erected in 1579 but has since been refronted and the old stone wall surrounding it pulled down. The interior is still intact with its panelled walls, carved seats for the mayor and aldermen, curious jury box, and other interesting features. By courtesy of the Mayor and Corporation the civic insignia, the Customal of Sandwich, together with many interesting charters and other documents were displayed in the Council chamber. In this chamber are preserved a curious series of paintings removed from an old house in the town. The paintings represent the landing of Catherine of Braganza, and her reception by Charles II.

After luncheon the party drove to Richborough, where Mr. GEORGE E. FOX, F.S.A., gave a description of the Roman fortress of Rutupiaë. The principal features were indicated by Mr. Fox, who spoke of the possibilities of the place as a signalling station and the absurdity of the great concrete platform in the centre being regarded as for any other purpose than to carry a watch tower or some such building. The journey to Canterbury was then continued, a halt being made at Ash Church, where some notes prepared by the vicar, were read by the Secretary in the unavoidable absence of the writer. VISCOUNT DILLOX, F.S.A., described the fine series of monumental effigies. These consist of a knight, *temp.* Edward I, in mail armour with ailettes, with an effigy of a lady beneath, probably a husband and wife; also of a beautifully sculptured figure of Sir John Leverick, showing the quilted gambeson and other defences worn about 1330, and alabaster effigies of John Septvans, Esq. (died 1458), in complete plate and standard of mail, and of his widow, who died forty years later.

In the evening Mr. W. H. ST. JOHN HOPE, M.A., opened the Architectural Section with an address upon the architectural history of Canterbury Cathedral. While avowedly taking as his basis Professor Willis's masterly treatise, Mr. Hope was able to show by extracts from the Account Rolls and other documents that much supplementary and corroborative evidence has come to light since 1845, and with the help of an elaborately constructed plan, with overlapping and movable sections, he traced the successive alterations and enlargements of the church from Lanfranc's time down to the present day.

Mr. H. SHARPE followed with a paper on "Rutupiaë." This paper is printed at p. 204.

Tuesday, July 28th.

This day was devoted to the cathedral church and buildings of the monastery under the guidance of Mr. W. H. ST. JOHN HOPE, M.A. Assembling in the south transept a visit was first paid to the chapel of St. Michael, which contains the coffin of Stephen Langton, and the tomb and effigies, splendidly carved in alabaster, of Lady Margaret Holland and her two husbands. Passing through the tunnel under the choir steps, the party next entered the north transept, where the scene of the "martyrdom" of St. Thomas in 1170 was pointed out. Attention was also called to the monuments and floor slabs, and to the re-arrangement of the steps by Prior Chillenden to give the monks a separate entry from the cloister. The Lady Chapel, built by Prior Goldstone, and dedicated in 1455, was also visited. A descent was then made to the crypt, where Mr. Hope pointed out the curious feature in the central alley (which was first noticed by Canon Scott Robertson) whereby the pillars have alternately plain capitals and ornate shafts, and carved capitals with plain shafts. The bases of the pillars have until lately been hidden by a deposit of earth brought in soon after the crypt was built to raise the level above that of floods. This has now been taken away, and by arrangement with the French Protestants the south side of the crypt has also been thrown open. After an inspection of the place of St. Thomas's tomb and other interesting features, the party returned by the newly opened south entrance of the crypt into the south transept, and thence ascended to the choir aisle. In the south wall of this is a tomb which has long been assigned to Archbishop Hubert, whose monument is now known to stand elsewhere. Mr. Hope explained that the effigy was not an archbishop's, but that of a mitred prior, and he had no doubt from the architectural evidence and the vacant niche on each side of the tomb that this was actually the hitherto unrecognized monument, put up in 1330, of Prior Henry of Eastry, who was recorded to have been buried "between the images of the holy virgins Sythe and Apollonia." Passing on to the place of St. Thomas's shrine, Mr. Hope called attention to the unaltered pavement that still surrounds the spot and to the actual stones of the steps of the shrine, which are laid in rows across its site. He also described what he had been able to learn as to the shape, structure, and surroundings of the shrine itself. Attention was also called to the arrangements of the circular chapel east of the shrine, which contained the altar of the Holy Trinity, flanked by the shrines of Odo and Wilfrid. Mr. Hope indicated the place on the south side where the relic called the Crown or Head of St. Thomas was kept within a grated enclosure. The chapel now contains the marble chair of the archbishops and Cardinal Pole's tomb. After inspecting the monuments of the Black Prince, Henry IV, and his queen, and others that surrounded the shrine, the party repaired to the choir, where the original arrangements were discussed, and the former sites of the archbishop's chair, of the high altar and the altars of St. Dunstan and St. Elphege, with their shrines, were pointed out. After an examination of the beautiful seventeenth century stallwork at the west end of the choir an adjournment was made for luncheon.

The afternoon was devoted to a perambulation of the monastic buildings. The cloister and chapter-house were first visited and their history and arrangements described, and then Mr. Hope led the way to the chapter library, where, by the aid of a number of plans, he explained the general arrangements of the monastery, especially as illustrated by Prior Wibert's curious twelfth century pictorial plan of the water supply. The remains of the various buildings were then visited in turn. The two early Saxon columns from the ruined church of Reculver were also examined, and commented on by Mr. Fox. The perambulation ended in the garden of the house now occupied by the Bishop of Dover, who most kindly entertained the company to tea.

In the evening the PRESIDENT, VISCOUNT DILLON, F.S.A., read a paper on "Calais and the Pale."

The general concluding meeting followed, the PRESIDENT in the Chair.

On the motion of the PRESIDENT, hearty and unanimous votes of thanks were accorded to His Grace, the Archbishop of Canterbury, President of the meeting, and to His Worship, the Mayor, for his courteous reception of the Institute.

Professor T. M'KENNY HUGHES proposed a vote of thanks to the Bishop of Dover, the Dean of Canterbury, and the cathedral clergy. This was duly seconded and carried unanimously.

A vote of thanks to the Foreign Delegates was proposed by the PRESIDENT and carried. Monsieur Tocilescu, delegate of the Rumanian Government, and Monsieur A. Joli, delegate of the Société d'Archéologie de Bruxelles, briefly responded.

Mr. J. T. MICKLETHWAITE proposed a vote of thanks to the Presidents of Sections. This was duly seconded and carried.

A similar compliment was paid to the readers of papers on the motion of Professor E. C. CLARK.

Mr. F. W. CROSS proposed a vote of thanks to the Local Committee and the Hon. Local Secretary.

Votes of thanks were also passed to the owners of houses visited, to the clergy who had allowed the Institute to visit and inspect the churches, and to the Master of the East Bridge Hospital for the use of the Hospital for holding the sectional meetings.

The PRESIDENT proposed a vote of thanks to the Director and Meeting Secretary, and the Rev. T. AUDEX, one to the President for presiding at the meeting.

Wednesday, July 29th.

At 10.15 a.m. the members proceeded by train to Lyminge and thence in brakes to Lympe. At the church the party was received by the vicar, the Rev. H. B. BIRON, M.A., who gave a short account of the building. It originally consisted of a Norman chancel, nave, and central tower, without transepts, but in the thirteenth century the chancel and nave were rebuilt on a larger scale and a north aisle added to the latter.

The early fifteenth century manor house adjoining the church was next visited, Mr. BIRON again acting as guide. The great hall is now divided into two stories with several rooms in each, but its large

windows still remain more or less intact, and the kitchen has upper-chambers.

After luncheon the Roman station, now called Studfall Castle, was visited under the guidance of Mr. G. E. Fox, F.S.A.

Now that the sea has receded nearly two miles from the camp it is not easy to realise that Portus Lemaniis, as Mr. Fox pointed out, once guarded the haven where the Romano-British fleet lay at anchor; and the destruction of the fortress by landslips has well-nigh obliterated all traces of its walls and towers, though portions remain in a more or less tumbled condition. Mr. Fox called special attention to the greater thickness of the walls as compared with those of Regulbium and Rutupiae, and to the existence of the mural towers, which were not found in the other two stations, except in a rudimentary form at the latter.

Re-entering the carriages, the party then drove back to Lyminge, where the church was inspected under the guidance of Mr. J. T. MICKLETHWAITE, F.S.A. The foundations in the churchyard are of the Saxon church built probably in 633 by Ethelburga.

The nave and chancel of the church itself are also Saxon, though of late date. The western tower and north aisle are supposed to have been added by Cardinal Bouchier.

From Lyminge the party returned to Canterbury by train.

Thursday, July 30th, and Friday, July 31st.

Two extra days devoted to visits to Calais and Boulogne. About thirty members of the Institute left Dover by the morning boat, and on arriving at Calais—where the Comte de Marsy, Directeur de la Société Française d'Archéologie, joined the party—proceeded to explore the old town under the guidance of Viscount Dillon. From Calais the party proceeded by the afternoon train to Boulogne-sur-Mer, where in the evening they were entertained to a "vin d'honneur" by the Mayor and Municipality in the Salon des Glaces in the Etablissement des Bains. On Friday morning visits were paid to the Communal Museum, where the Curator, Dr. H. E. Sauvage, exhibited and explained the principal objects; to the cathedral and crypt, and to the Château. A small committee, appointed by the Mayor and Municipality, accompanied the members on their perambulation and provided every facility for a thorough inspection of the buildings visited. Unfortunately lack of time prevented the proposed visits to the library, the belfry, and the tour d'Ordre which had been included in the programme. Hearty votes of thanks were passed to the Mayor and Municipality, to the Reception Committee, to the Curator of the museum, and to the Librarian. The party then returned home by way of Folkestone.

Ordinary Meetings.

July 1st, 1896.

E. GREEN, F.S.A. (*Hon. Director*), in the Chair.

Mr. J. R. MORTIMER communicated a paper on "Killing Pits on Goathland Moor between Scarborough and Whitby." This paper is printed at p. 144 of the present volume of the *Journal*.

Professor BUNNELL LEWIS, M.A., F.S.A., read a paper on "The Mosaic of Monnus at Trèves." This mosaic was discovered by workmen excavating for the foundations of the Provincial Museum in that city. The dimensions were 5 mètres 69 centimètres in length and breadth. In addition to this square there was an apse with an ornamental border, enclosing a space covered by aquatic plants. The mosaic is at present in a fragmentary condition, having suffered from a terrible conflagration, probably in the fifth century, when the barbarians were devastating the Roman empire; it seems also to have been pillaged in the Middle Ages for the sake of building materials. The representations in the quadrangular area may be divided into six classes: 1. In nine octagons, a muse instructing a mortal; 2. In eight squares round the central octagon, busts of Greek and Roman poets and prose-writers; 3. In eight squares further from the centre, busts of dramatic characters; 4. In pentagons at the four corners, the four seasons; 5. In twelve trapeziums, the zodiacal signs; 6. In twelve squares above the pentagons, and between the trapeziums, the months of the year.

Of the octagons, the best preserved are those of Urania and Enterpe: a coloured plate of the latter was exhibited, which was published in the "Denkmaeler" of the Imperial German Archaeological Institute. Among the busts, Ennius and Hesiod are in a better condition than the rest. Autumn appears riding on a panther; and we may infer from the analogy of similar compositions that each of the other seasons was mounted on a different animal. The months are represented by deities selected either from the resemblance of their names, *e.g.*, Juno for June, or in accordance with the dates of their festivals. The mosaic is almost *in situ*, having been only transferred from the soil in which it was discovered to the first story of the museum.

Professor LEWIS's paper will appear in a future number of the *Journal*.

November 4th, 1896.

JUDGE BAYLIS, Q.C., V.P., in the Chair.

Mr. W. HARPER exhibited and presented a porcelain reproduction of the Sandbach crosses.

CHANCELLOR FERGUSON, F.S.A., by permission of Colonel Baldwin, of Dalton-in-Furness, exhibited a portable sundial. It consists of a brass plate of octagonal shape $3\frac{1}{8}$ inches long and $2\frac{3}{8}$ inches broad.

The lower half of the plate is occupied by a compass whose glass top is a little below the upper surface of the brass plate, and whose box projects a quarter of an inch below it. The gnomon occupies the upper half of the box and is hinged so as to fold down flat on the dial. On one side of the gnomon is engraved in a running hand "Time flies," while the other is graduated from 40° to 60° , so that the instrument can be set to any latitude between 40° and 60° . The hour lines radiate to the edge of the upper five sides of the dial, and are numbered both in Arabic and in Roman figures from 4 A.M. to 8 P.M. In the centre of the dial is the legend "Phil: Bullock fecit"; and near where the morning hour lines begin are engraved in very small Arabic figures 53 20 and 51 32, the latitudes respectively of Dublin and of Cork. On the back of the plate the following tables of latitude are boldly engraved:—

Rome	41	York	54
Paris	48 45	Cork	51 32
Exeter	50 40	London	51 32
Dover	51	Dublin	53 20
Coleraine	54	Oxford	51 45
Limerick	52 25	Galway	53 2

Coleraine and York are on the same parallel of latitude, and this table thus seems to have been engraved for the benefit of some one whose travels in England did not go far north beyond York, and in Ireland beyond Coleraine. Chancellor Ferguson had not been able to trace "Phil. Bullock," but from the character of the lettering he put it down to the end of the seventeenth or beginning of the eighteenth century. The dial is contained in its original case of pasteboard covered with leather, hand and blind tooled with a pattern of alternate rows of small annulets and of small crosses contained each in a small circle. The Chancellor also, by way of illustration, exhibited a modern portable dial, made by Messrs. Elliott & Sons, the Strand, London, a complicated implement provided with three spirit levels, and capable of being used with great precision anywhere in the northern hemisphere. The Company of Clockmakers possesses a silver pocket sundial which much resembles that belonging to Colonel Baldwin. This dial is engraved in *Time and Timekeepers*, by J. W. Benson, and in the *Reliquary*, vol. xvi, plate xxvii.

Mr. GEORGE E. FOX, F.S.A., read the first portion of a paper on "Uriconium," the modern Wroxeter in Shropshire. Mr. Fox first dealt with the general plan and the defences of the city, the latter consisting of a mound and ditch, the direction of whose line can only now be vaguely made out except at a few points; and secondly with the details of discoveries relating to public and private buildings up to the excavations undertaken in 1859.

December 2nd, 1896.

JUDGE BAYLIS, Q.C., V.P., in the Chair.

Mr. JAMES HILTON, Hon. Treasurer, stated that a resolution had been passed by the Council protesting against the proposed demolition and rebuilding of the west front of Peterborough Cathedral

Church, and that the resolution had been forwarded to the Dean and Chapter.

MR. W. H. ST. JOHN HOPE gave a brief description of the work contemplated at Peterborough, and of the alternative scheme put forward by the Society for the Protection of Ancient Buildings.

J. WICKHAM LEGG, M.D., F.S.A., read a paper on "The Queen's Coronation Ring." Dr. Legg traced the history of the English coronation ring from the Coronation Order in the Pontifical of Robert of Jumièges to the present reign. In the time of Edward I. the ring was of gold; in the reign of Richard II. a ruby had been set in it, and the ruby ring continued at least to the coronation of James II.; but the rings of King William IV. and of the Queen were adorned with large sapphires marked with a ruby cross. In this adoption of the sapphire there was a following of the episcopal ring which would remind the antiquary of many other points in the Order of Consecration of the Kings of England in which there were resemblances to the Order of the Consecration of Bishops. In illustration of his paper, Dr. Legg exhibited photographs (taken by command of the Queen) of Her Majesty's coronation ring and those of King William IV. and Queen Adelaide. Dr. Legg's paper will be printed in the *Journal*.

MR. CHRISTOPHER TURNOR contributed a paper on "The Buried Cities of Yucatan," illustrated by means of lantern photographic slides. The principal ruins described were those of Uxmal and Chichen-Itza.

Notices of Archaeological Publications.

THE GENTLEMAN'S MAGAZINE LIBRARY: being a classified collection of the chief contents of the *Gentleman's Magazine* from 1731 to 1868. Edited by GEORGE LAWRENCE GOMME, F.S.A. *English Topography. Part VII. Leicestershire—Monmouth.* Edited by F. A. MILNE, M.A. (London: Elliot Stock, 8vo, 1896.)

This volume advances the editor's work, now including Leicestershire, Lincolnshire, Middlesex and Monmouthshire. The last being distant from headquarters has not a long notice, but on the last page there is mention of a curious chalice at Bicknor bearing the date 1176. Many curious matters and customs are recorded as usual. At Hinckley, there is mention of an old oak bedstead, gilt and ornamented in panels, twenty-nine in all, each painted with emblematic devices, and having each its Latin motto. The mottoes are here printed and translated. At Rigbolt, in Lincolnshire, was another very remarkable panelled bedstead, thirty-six of the panels were left in 1793, and the then tenant of the house remembered it complete as being shut in or boarded up as it were on all sides with wainscot, two holes being left or made at the foot through which intending sleepers must have crept.

An inventory of the goods of a farmer in 1652 is interesting, and we think more attention could be paid to this class of document. London proper is not included as it will have a separate volume, but Middlesex has of course many things great and small recorded. There is a summary of its history, with some concluding miscellaneous remarks, in which it appears that Chelsea was once known as Calcuith. We can only again wish all success for these well edited volumes.

HUNTINGDONSHIRE AND THE SPANISH ARMADA. Edited from original manuscripts by W. MACKRETH NOBLE, B.A, rector of Wistow, Hunts. (London: Elliot Stock, 8vo, 1896.)

This little book is to be commended. We remember but one work on the subject published in 1888, the tercentenary of this important historic event, but, full of local interest as the time was, every point should be worked out for every county. The brunt of the anxiety lay on the maritime counties, but the men of inland Hunts were prepared and willing to back up others, and so joined the force assembled at Tilbury to guard the Thames and London. The necessary preparations extending over forty years bring out circumstances of extreme interest in the social life of the time. One great interest here is the constant notice of the Cromwell family, and there is a muster roll of a company commanded by an Oliver Cromwell in 1588; there are also many letters from Sir Henry Cromwell, showing his activity and loyalty. The loyalty to the Queen was one of enthusiastic devotion. The material used by the Editor is taken from a manuscript once in the possession of Lord de Ramsay, now in the

British Museum, but we would suggest that more of interest may probably be found in the Domestic State Papers, which, if added, would fairly exhaust the subject.

THE MONASTERY OF PETSCHENGA, SKETCHES OF RUSSIAN LAPLAND. (From historical and legendary sources.) By J. A. FRÜS, professor in the University of Christiania. Translated by HILL REPP. (London: Elliot Stock, 8vo, 1896.)

Far away to the north on the coast of the White Sea, on the shores of Russian Lapland, a country still almost unvisited, is laid the scene and story here related. The narrative opens with the adventures of three sportsmen, who are camping out, when one of them happens upon a millstone, causing a surprise which could have been equalled only by Robinson Crusoe's discovery of the footmark in the sand. Enquiry from the Lapps results in learning that by a tradition with them there was long ago a monastery thereabouts, and this information later, being followed by research in the Norwegian and Russian archives, has enabled the author to tell his tale. This monastery, the most northerly in the world, was founded by a repentant brigand and murderer, who, perhaps judiciously, seeking solitude far from the haunts of men, wandered northwards in 1524, and settled on the Petschenga river. Getting fame as a hermit pilgrims visited him, when he built a chapel and returned to Russia for a priest. In time he managed to attract the notice of the Czar, and so got a grant of the land and all rights in 1556. The result was soon a prosperous trading station and wealth, destined not to last long. However, as during a war between Sweden and Russia, some Finnish troops reached the monastery, and plundered and burned it with the various warehouses in 1589. So trees grew on the site, everything having disappeared save the millstone.

PREHISTORIC MAN IN AYRSHIRE. By JOHN SMITH. (London: Elliot Stock, 8vo, 1895.)

Rarely do we meet with a work so persistently and intelligently followed as is shown in this volume. The history of the early inhabitant is gathered from cromlechs, crannogs, turf spirals, dinans, kits, hut circles, and vitrified walls, urns, pottery, and every other sort of remains. The author has evidently worked the county thoroughly, and more, he has carefully made drawings of his finds, and these are here well and carefully reproduced, much enhancing the value and interest of the book. There is a good drawing of Dunvin fort on the Ring Knoll, also of Dalmellington Moot hill. The turf village at Old Gallock, of which a plan is given, is of great archæological interest, there being eighteen houses and two hut circles remarkably entire. Some trenches on the banks of the Fail Water, called locally the Roman trenches, must be unique in plan. The author supposes them to have been made as an approach to cover an attack on a British stockade, but as really nothing can be known about this curious place it must long probably remain a puzzle. Recording incidentally the find, not as pre-historic, of some gravestones at

Kilwinning Abbey, one bearing shears and a cross is supposed to indicate a woman, or spinster, but we would suggest that this emblem marks an archdeacon. An archdeacon performs archidiaconal functions, and one function was conferring the tonsure, hence the shears.

LINCOLN'S INN FIELDS AND THE LOCALITIES ADJACENT: their historical and topographical associations. By CHARLES WILLIAM HECKETHORN. Small 4to. (Elliot Stock, London, 1896.)

Lincoln's Inn Fields and Environs, by Charles W. Heckethorn, is a book of well thought out and interesting facts, and to those of Archæological tastes it is a most valuable addition to a library.

Mr. Heckethorn carries us back to the early part of the 13th century, when we are told the Black Friars occupied the Holborn site of Lincoln's Inn. This brotherhood increased and outgrew the monastery, removing to a locality on the Thames, since named after them, Blackfriars.

After pointing out how this spot was the centre of learning, we read the names of many eminent students, members, and residents. Sir John Fortescue (b. 1395, d. 1485), one of the benchers, being the man who is first mentioned, and to whom it owed its rising celebrity; Sir Thomas More is also mentioned, Prynne, Thomas Sutton, founder of the Charterhouse, and others bringing the list down to Simon Michell, Esq., who purchased the church of St. John, Clerkenwell, where he was subsequently buried.

Passing on to the surroundings of Lincoln's Inn Fields, we find a description of such buildings and places as the College of Surgeons, Clare Market, St. Clement's Lane, Portugal Street, King's College Hospital, and the Duke of York's Theatre, this last named building existing until 1745, when it was taken possession of by a detachment of the Foot Guards, and eventually became Spode's china repository.

We find the merry Mr. Pepys to have frequented these parts, as he is mentioned as having been a visitor in Vere Street, where a theatre existed, in which was performed on the opening night, November 8th, 1660, the play "King Henry IV."

This history of Lincoln's Inn is made doubly attractive by the numerous illustrations by Alfred Beaver and others, handing down to posterity pictures of some of the most interesting portions of old London which are so fast disappearing.

COUNTY RECORDS OF THE SURNAMES OF FRANCUS, FRANCEIS, FRENCH IN ENGLAND, A.D. 1100-1350. By A. D. WELD FRENCH. 8vo. Privately printed. Boston, U.S.A., 1896.

Mr. French's *Index Armorial of the surname of French*, and his *Frenches in Scotland*, have already been noticed in previous volumes of the *Journal*. The present work contains extracts from miscellaneous documents and charters in which the name of French, in its many variations, appears. Unfortunately, no reference is made to the sources from which the information is derived, nor are the references to the various rolls, &c., given.

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